



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

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Mr. Brendan Murphy  
Group Regulatory & Commercial Director  
Irish Water  
Coville House  
24-26 Talbot Street  
Dublin 1

CRU Ref: D/22/2291

02 March 2022

**Re: CRU Leakage Request for Information**

Dear Brendan,

Further to our meeting on 31 January 2022. At this meeting, the CRU reiterated the specific requirements of the CRU's decisions with respect to leakage and again highlighted the omissions in Irish Water's submissions to date.

As you are aware, the CRU's RC3 Financial Incentives decision<sup>1</sup> (CRU/21/108) and Performance Assessment Framework 2020-2024 decision<sup>2</sup> (CRU/21/101) set out the financial incentives and data requirements related to leakage for the period 2020-2024. Progress to reduce leakage levels is important as it reduces Irish Water's costs over time which consequently reduces costs to customers, while also providing environmental benefits in reducing the amount of water that needs to be abstracted and treated. My previous letter dated 17 December 2021 clarified the CRU's requirements for the benefit of Irish Water. However, neither the initial Irish Water submission on 17 December 2021 nor the subsequent submissions received on 21 January 2022 and 11 February 2022 provided all the required information, or in some cases, not in the format required. A description of the discrepancy between the leakage request and submission follows in the appendix of this letter.

As per section 43(2) of the *Water Services (No. 2) Act 2013*,

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<sup>1</sup> CRU21108 Irish Water Revenue Control 3 – Financial Incentives (Non-Domestic Billing and Leakage)

<sup>2</sup> CRU21101 Irish Water Performance Assessment Framework 2020 to 2024 Metric Review and Target Setting



*Irish Water shall, as soon as reasonably practicable, comply with a request made by the CRU to provide it with such information as the CRU may reasonably require to enable it to perform its functions under this Act.*

On this basis, the CRU is requesting Irish Water to provide the information required and as set out in the CRU's decision papers (CRU/21/108 and CRU/21/101) **no later than 16 March 2022**. Further information on what remains outstanding is detailed in the table sent to, and discussed with, Irish Water on 31 January 2022 with additional clarifications provided by email (highlighted in red in the appendix to this letter).

Notwithstanding the above, and as previously communicated to Irish Water, the CRU will apply the framework as set out in the RC3 Financial Incentives decision paper as appropriate in relation to the stated deadline of 31<sup>st</sup> December 2021.

The CRU's water team is available to provide any further clarification on the requirements should you require it.

Yours sincerely,

Karen Kavanagh  
Director, Economic Regulation (Water), Compliance and Customer Affairs

CC Paul McGowan, Commissioner, Commission for Regulation of Utilities  
Niall Gleeson, Chief Executive Officer, Irish Water



## Appendix

CRU RC3 Leakage Requirements (Investment Plan Monitoring, Performance Assessment Framework Reporting and RC3 Financial Incentives)					
CRU Requirement	CRU Decision Ref	Further CRU Guidance	IW Submission(s)	Outstanding Information Required	
<p><b>Public side leakage</b> (Leaks on trunk mains, distribution pipes, service connections and leaks and overflows at storage reservoirs)</p>	<p>Annual average leakage (2020)</p>	<p><b>CRU21108 Irish Water Revenue Control 3 – Financial Incentives (Non-Domestic Billing and Leakage) p38</b> “The CRU requires Irish Water to report leakage in a transparent manner, defined as the annual average volume of water lost per day on the public and on private networks.”</p> <p><b>p31</b> “The CRU will also report on Irish Water’s reduction of customer side leakage, and on its reduction of leakage on the public network under the RC3 Performance Assessment Framework, given the targets proposed by Irish Water, and as funded for by the CRU.”</p> <p><b>p42</b> “The CRU will also report on Irish Water’s delivery of both targets under the Performance</p>	<ul style="list-style-type: none"> <li>2020 Monitoring Submission Guidance and Definitions document issued to IW on 12 March 2021</li> <li>2018 Monitoring Submission Guidance and Definitions document issued to IW on 18 April 2019</li> <li>Guidance note to Irish Water for Revenue Control 3 Business Planning Questionnaire issued 22 June 2018</li> </ul> <p><i>e.g., Raw water abstracted: Full year average volume of water abstracted from Irish Water’s sources. Indicate</i></p>	<p>30 June 2021 CIP: Points in time, Oct to Sept. <i>Note: not clarified by IW that it did not match CRU guidance</i></p> <p>01 Sept 2021 PAF: Points in time, Oct to Sept. <i>Note: first time IW set out that it had changed its leakage reporting</i></p> <p>17 Dec 2021: Points in time, Oct to Sept. <i>Note: CRU clarified on call with IW 11 Nov 2021 that its requirements remained as set out in previous decision papers</i></p> <p>21 Jan 2022: Unclear – leakage figures same as</p>	<ul style="list-style-type: none"> <li>Certainty around calculations and assumptions made</li> <li>IW needs to set out the underlying calculation for the old and new methodologies to demonstrate how it generated the same result for 2020. <b>Please provide both the Water Balance and the basis for the ‘point in time’ calculations as agreed on the call.</b></li> </ul>



	<p>Assessment Framework and the Capital Investment Plan Monitoring reports.”</p> <p><b>CRU21101 Irish Water Performance Assessment Framework 2020 to 2024 Metric Review and Target Setting p68</b> “...the CRU has decided it will monitor leakage as set out in the consultation paper, i.e., monitor public and customer side leakage separately.”</p> <p><b>p73</b> “The CRU continues to emphasise the requirement on Irish Water to report in a transparent manner on leakage, defined as the annual average volume of water lost per day on the public network and on the customer side.”</p>	<p><i>measured volumes and estimated volumes. Outline the basis for estimations and assumptions.</i></p>	<p>based on previous IW calculation methodology</p>	
2019 leakage (baseline)	<p><b>CRU21108 p38</b> “...Irish Water is required to submit its leakage figures for 2019, for both a) public network leakage and b) customer side leakage, to the CRU. These will then be used as the baseline against which to assess Irish Water’s performance in meeting the targets committed to at RC3.”</p> <p><b>CRU21101 p73</b> “The CRU requires that Irish Water provide leakage</p>	As above	As above	<ul style="list-style-type: none"> <li>• As above</li> <li>• IW to clarify figure as leakage considering 2019 UFW previously provided. To include any validations or changes made through year of reviewing the LMS data. <b>The CRU requires Irish Water to provide a revised 2019 leakage figure based on its improved leakage data. On that basis, Irish Water is to state if any validations or changes were made</b></li> </ul>



	figures for 2019 for a) public and b) private side (customer supply pipe) leakage and submits its methodology statement for the above.”			to the 2019 Water Balance previously submitted to the CRU, particularly in relation to the estimations. If no validations or changes were made by Irish Water, the CRU needs to understand how the 2019 UFW figure can be considered to be a suitable leakage baseline.
2019 Water Balance as per Investment Plan Monitoring	<p><b>CRU21108 p32</b> “Any improvements to the estimations used in the water balance table should continue to be reported to the CRU and will be treated accordingly<sup>15</sup>.”</p> <p>“<sup>15</sup>The CRU requires Irish Water to report the water balance annually under the capital Investment Plan monitoring framework.”</p> <p><b>CRU21101 p68</b> “This is consistent with the CRU’s requirement that Irish Water report on leakage by providing a water balance to the CRU annually under the Capital Investment Plan Monitoring Framework.”</p>	As above	17 Dec 2021 and 21 Jan 2022 submissions are simplified Water Balances.	<ul style="list-style-type: none"> <li>Data to be provided as per the CRU’s IP monitoring Water Balance and related guidance document.</li> </ul>
2020 Water Balance as per Investment	<b>CRU21108 p32</b> “Any improvements to the estimations used in the water balance table should continue to be reported to the CRU and will be treated accordingly <sup>15</sup> .”	As above	17 Dec 2021 and 21 Jan 2022 submissions are simplified Water Balances.	<ul style="list-style-type: none"> <li>Data to be provided as per the CRU’s IP monitoring Water Balance and related guidance document.</li> </ul>



	Plan monitoring	<p>“<sup>15</sup>The CRU requires Irish Water to report the water balance annually under the capital Investment Plan monitoring framework.”</p> <p><b>CRU21101 p68</b> “This is consistent with the CRU’s requirement that Irish Water report on leakage by providing a water balance to the CRU annually under the Capital Investment Plan Monitoring Framework.”</p>			
	2019 methodology statement	<p><b>CRU21108 p29</b> “Irish Water is also required to provide a methodology statement to support its baseline leakage levels (both public and customer side) by the stated deadline of 31st December 2021.”</p> <p><b>CRU21101 p68</b> “The CRU requires Irish Water to provide baseline leakage figures for 2019 against which to assess Irish Water’s delivery of the targets on water lost on both the public network and customer supply pipes by end 2021. Irish Water should also provide a methodology statement in each case.”</p>	As above	Brief comments provided only (30 June 2021 CIP, 17 Dec 2021 submission).	<ul style="list-style-type: none"> <li>• Detailed rationale behind the data provided for each line-item in the Water Balance. To include:             <ul style="list-style-type: none"> <li>○ Where data is measured/estimated</li> <li>○ What assumptions have been used</li> <li>○ Why these assumptions have been used (e.g., UK best practice, international best practice, IW own internal estimations – if so, how did it arrive at these figures)</li> <li>○ What other assumptions IW had considered and why the current assumption was chosen</li> <li>○ Where these assumptions have changed since 2018,</li> </ul> </li> </ul>



		<p><b>CRU21101 p73</b> “The CRU also requires Irish Water to set out its methodology, including inputs and assumptions made, in calculating and deriving each of the components of the water balance to ensure that all figures are interpreted correctly.”</p>			<p>why these assumptions have changed</p> <p>For example, IW’s own use ‘assumed to be 1% distribution input’ is not adequate as a methodology statement. To form a methodology statement, Irish Water must explain why it is assumed to be 1% and no higher/lower, and why 1% is more appropriate than other water companies’ estimations. This is to be repeated for each component of the water balance.</p> <p>A detailed Word document/PDF outlining the basis for estimations and assumptions made for each individual component of the Water Balance will be accepted.</p> <p>Submissions are to be made for both 2019 and 2020 (separately) as the CRU needs to understand where any changes may have been made to the estimations that could impact on the leakage figure. Methodology statements will continue to be required with each submission under Investment Plan monitoring to continue to monitor this during the RC3 period.</p>
	<p>2020 methodology statement</p>	<p><b>CRU21101 p73</b> “The CRU also requires Irish Water to set out its methodology, including inputs and</p>	<p>As above</p>	<p>Brief comments provided only (30 June 2021 CIP, 17 Dec 2021 submission).</p>	<ul style="list-style-type: none"> <li>Detailed rationale behind the data provided for each line-item in the Water Balance. To include:</li> </ul>



		assumptions made, in calculating and deriving each of the components of the water balance to ensure that all figures are interpreted correctly.”			<ul style="list-style-type: none"> <li>○ Where data is measured/estimated</li> <li>○ What assumptions have been used</li> <li>○ Why these assumptions have been used (e.g., UK best practice, international best practice, IW own internal estimations – if so, how did it arrive at these figures)</li> <li>○ What other assumptions IW had considered and why the current assumption was chosen</li> <li>○ Where these assumptions have changed since 2019, why these assumptions have changed</li> </ul> <p>As above</p>
<b>Private side</b> (customer supply pipe leakage)	2019 annual average leakage (baseline)	<p><b>CRU21108 p38</b> “...Irish Water is required to submit its leakage figures for 2019, for both a) public network leakage and b) customer side leakage, to the CRU. These will then be used as the baseline against which to assess Irish Water’s performance in meeting the targets committed to at RC3.”</p> <p><b>CRU21101 p73</b> “The CRU requires that Irish Water provide leakage figures for 2019 for a) public and b) private side (customer supply pipe)</p>	<ul style="list-style-type: none"> <li>• 2020 Monitoring Submission Guidance and Definitions document issued to IW on 12 March 2021</li> <li>• 2018 Monitoring Submission Guidance and Definitions document issued to IW on 18 April 2019</li> </ul>	<p>No estimation provided.</p> <p>No basis for arguments presented.</p>	<ul style="list-style-type: none"> <li>• Estimate on customer supply pipe leakage (e.g., UKWIR – BABE approach).</li> </ul>



	leakage and submits its methodology statement for the above.”	<i>e.g., Customer Supply Pipe Leakage (Average in Reporting Period) - Metered domestics: Estimated losses on the supply pipe from the curtilage of the property to the internal supply pipes of buildings. Irish Water should outline how this has been determined/estimated and verified and outline how it is accounting for internal losses.</i>		
2020 annual average leakage	<p><b>CRU21108 p38</b> “The CRU will also report on Irish Water’s reduction of customer side leakage, and on its reduction of leakage on the public network under the RC3 Performance Assessment Framework, given the targets proposed by Irish Water, and as funded for by the CRU.”</p> <p><b>CRU21108 p42</b> “The CRU will also report on Irish Water’s delivery of both targets under the Performance Assessment Framework and the Capital Investment Plan Monitoring reports.”</p>	As above	<p>No estimation provided.</p> <p>No basis for arguments presented.</p>	<ul style="list-style-type: none"> <li>Estimate on customer supply pipe leakage. (e.g., UKWIR – BABE approach).</li> </ul>



		<b>CRU21101 p68</b> "...the CRU has decided it will monitor leakage as set out in the consultation paper, i.e., monitor public and customer side leakage separately."			
	2019 methodology statement	<p><b>CRU21108 p29</b> "Irish Water is also required to provide a methodology statement to support its baseline leakage levels (both public and customer side) by the stated deadline of 31st December 2021."</p> <p><b>CRU21101 p68</b> "The CRU requires Irish Water to provide baseline leakage figures for 2019 against which to assess Irish Water's delivery of the targets on water lost on both the public network and customer supply pipes by end 2021. Irish Water should also provide a methodology statement in each case."</p> <p><b>CRU21101 p73</b> "The CRU also requires Irish Water to set out its methodology, including inputs and assumptions made, in calculating and deriving each of the components of the water balance to ensure that all figures are interpreted correctly."</p>	As above	Not provided.	<ul style="list-style-type: none"> <li>• Explanation of the methodology chosen to estimate CSPL and the basis for which IW has chosen this methodology. This is to include: <ul style="list-style-type: none"> <li>○ Where data is measured/estimated</li> <li>○ What assumptions have been used</li> <li>○ Why these assumptions have been used (e.g., UK best practice, international best practice, IW own internal estimations – if so, how did it arrive at these figures)</li> </ul> </li> <li>• In the case of deviation from other water companies, IW to set out exactly why it has deviated and the impacts of this on the estimation.</li> </ul> <p>Please provide details for IW's proposed methodology including an explanation of why more established techniques are not appropriate, e.g. the BABE method. As per the decisions, customer supply pipe leakage data will be required on an annual basis for the duration of RC3.</p>



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	2020 methodology statement	<b>CRU21101 p73</b> “The CRU also requires Irish Water to set out its methodology, including inputs and assumptions made, in calculating and deriving each of the components of the water balance to ensure that all figures are interpreted correctly.”	As above	Not provided.	<ul style="list-style-type: none"><li>• As above</li></ul>