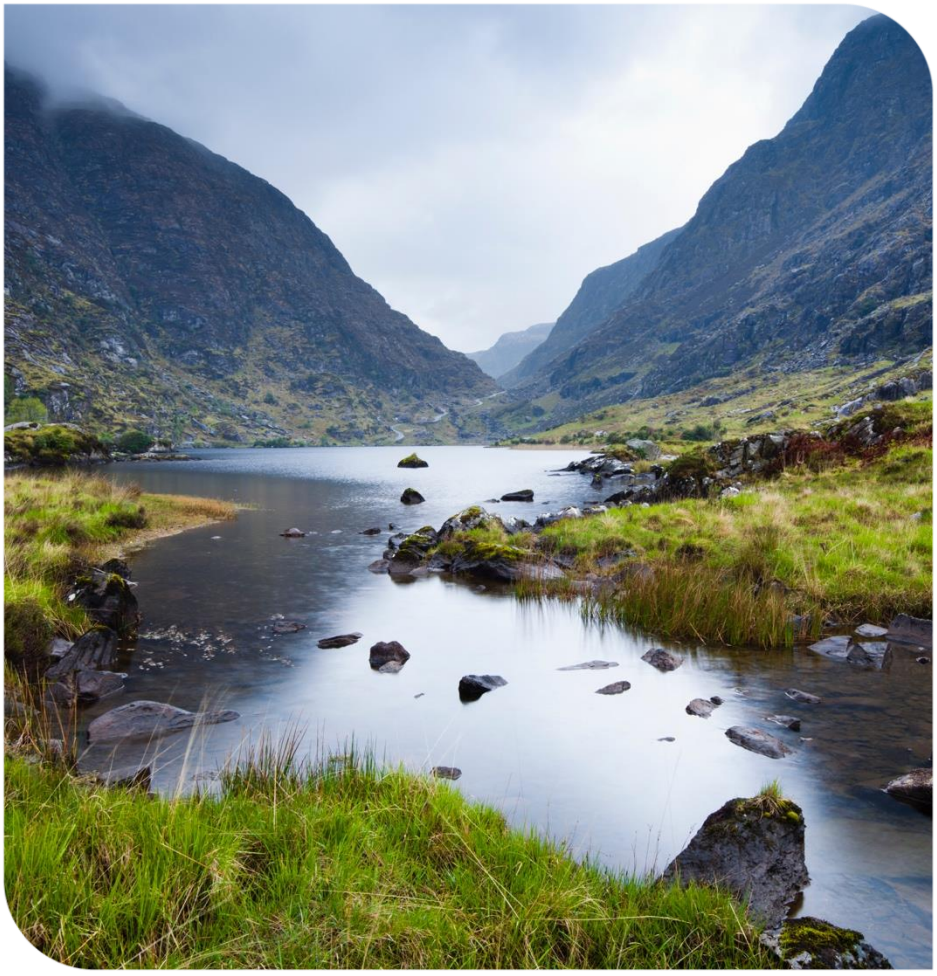
August 2022

Irish Water Operational Expenditure Submission

Response to CRU/202267 Irish Water Revenue Control 3 – Interim Review Consultation



Executive Summary

The CRU consultation paper (CRU/202267) acknowledges inflationary shocks that have created "very significant price volatility" and sets out different options to address this through amendments to Irish Water (IW's) allowed revenues.

This paper sets out IW's submission in relation to inflationary pressures on IW's operational expenditure (opex). Given the prevailing uncertainty in the macro-economic environment, and the urgent need to align with Government budgetary processes, it focuses on 2023 only. IW proposes that adjustments to years 2020 to 2022 inclusive be reconciled as part of the k-factor process at the end of RC3. IW also proposes that requirements for 2024 be assessed next year when further cost and trend data is available.

For 2023, this paper provides evidence of the inflation impacts affecting the Design Build Operate (DBO) and Energy costs specifically, and confirms that these are real, material and beyond management control. In supporting analysis, IW has utilised long term gas price forecast assumptions from an external market source to predict the impact on these areas in 2023. These gas price forecasts have a strong correlation to the CSO Wholesale Price Index (WPI) electricity index used in setting the price for a majority of IW's DBO portfolio and are an appropriate predictor of future energy prices. IW's analysis indicates that the CSO WPI electricity index will have increased by 721% from a 2017 base to 2023. IW has partially mitigated against these increases through its various commercial strategies and electricity hedging policy, avoiding significant opex increases in 2019 to 2022. Such mitigations will not be achievable again in 2023.

IW has also provided an impact assessment of the recently announced Framework for the future of water services. While representing a significant milestone in enabling the transition to a national water services authority, the Framework also sets new parameters and timelines which directly impact IW's opex need for 2023. Specifically, the associated Voluntary Redundancy scheme will not open to applications until the end of Q1 2024. This means that IW's 4% efficiency target for 2023 will not be achievable, resulting in an increased opex requirement versus the current approved allowance.

IW's analysis indicates that these opex impacts will result in a funding shortfall for 2023, currently estimated at €198m[1] versus the current approved allowance (equating to a €218m nominal adjustment). Given that IW's funding is provided by Government through the annual budgetary process, an increase of this order is required to ensure that IW has sufficient opex allowance to operate water services effectively in 2023.

The CRU is consulting on three options to mitigate the potential impact that current price volatility and inflation is having on IW's business operations. IW has

[1] 2017 monies based on decision rates.

analysed each option within this submission and has concluded that Option 2 (HICP and specific differential inflation adjustment) is the only viable option. IW has calculated an appropriate specific differential inflation adjustment based on publicly available forecasts. Importantly, a review of price movements can be undertaken to allow future revision of the 2023 allowance once actual outturn data (or a mid-year forecast) is available. This provides comfort that IW will not over-recover while ensuring that customers will not bear the risk of serious service disruption due to insufficient funding.

IW is requesting the CRU to approve Option 2 (HICP and specific differential inflation adjustment); to utilise IW's suggested forecast index assumptions in its decision; and to revise the 2023 efficiency target based on the parameters of the recently announced Framework for the future of water services.

1. Introduction

The CRU has issued a consultation on an interim review of RC3 in response to current inflationary trends. The consultation invites IW to "prepare a suitable regulatory submission to justify its requirements…..and address the suitability of the proposed options. The submission should clearly outline the impact of current pressures, quantify it and detail what the consequences are."

This paper represents IW's submission in respect of opex (a separate submission is being made in respect of capex). It provides evidence of inflationary impacts on Design Build Operate (DBO) and Energy costs specifically, and confirms that these are real, material and beyond management control.

IW has also provided an impact assessment of the recently announced Framework for the future of water services. While enabling the transition to a national water services authority, the Framework also sets new parameters and timelines which directly impact IW's opex need for 2023.

Finally, IW provides its analysis of the options consulted upon by the CRU to mitigate the potential impact of current price volatility and inflation on IW's business operations, and sets out the impact of any under-funding.

2. Evidence of inflationary cost pressures

In setting prices for the RC3 period 2020-2024, the CRU decided on allowances in a 2017 price base. The projected impact of inflation was accounted for via a Harmonised Index of Consumer Prices (HICP) based on certain inflation and growth assumptions. The projected inflation rates were published in the regulatory model and are set out in **Table 1** below. The actual and updated forecasted rates[2] have also been shown in this table for comparison purposes.

Index	2020	2021	2022	2023	2024
Projected HICP (Cumulative Factor)	104%	106%	108%	110%	113%
Actual & Updated forecast Annual change (Cumulative Factor)	101%	104%	111%	115%	117%
Variance	(3.2%)	(2.6%)	+2.7%	+4.8%	+4.9%

Table 1: RC3 projected inflation rates and actual rates including updated forecast

[2] Based on Central Bank average HICP rates for year published in the CRU Consultation.

Table 1 shows that by 2022 the projected HICP inflation rates are insufficient to ensure Irish Water is appropriately funded for its operational costs.

IW's cost base includes certain elements that are susceptible to price volatility significantly above HICP. These primarily relate to two key areas – DBO legacy contracts (DBO) and energy costs. Both elements are particularly related to the CSO WPI Table 5 – Electricity Index, as explained later.

Table 2 illustrates the year on year and cumulative movement since 2017 of this index in comparison to the projected HICP included in the original RC3 decision.

Index	2017	2018	2019	2020	2021	2022	2023
WPI Electricity Index	89.2	117.4	92.8	69.4	260.4	489.0	643.0
YoY % variance	-	32%	(21%)	(25%)	275%	88%	31%
Actual / F/cast variance (Cuml.)	-	132%	104%	78%	292%	548%	721%
Projected HICP (Cuml.)	N/A	N/A	N/A	104%	106%	108%	110%
Variance vs Projected HICP	N/A	N/A	N/A	-26%	186%	440%	610%

Table 2 – CSO Electricity Index (Table 5 WPI) – Actuals and forecast for 2023 vs projected HICP in RC3.

IW's analysis in Table 2 indicates that the CSO Electricity index is predicted to be six times higher than the projected HICP inflation rate allowed by the CRU by 2023 and is already expected to be four times higher in 2022. This is clearly a real and material inflation impact.

Forecasted Index

In the absence of a forecast for CSO WPI Table 5 – Electricity, IW has used gas price forecasts from an external market source to predict the index for the remainder of 2022 and 2023. Electricity generation in Ireland is significantly dependent on gas sources and IW has estimated a correlation between the gas price and CSO Electricity Index of 0.5. The external market source is forecasting an average gas price of £322p / therm which would equate to the 643.0 index point set out in Table 2 above.

DBO legacy contracts

The DBO portfolio was migrated to IW upon its establishment and includes most of the wastewater plants in operation by the utility. The DBO portfolio consists of over 270 plants under 126 contracts and approximately 34% of these include a Wholesale Price Index (WPI) indexation clause applicable to the variable element of contract costs. The indexation clauses in these contracts use a basket of indices from the overall CSO WPI Index intended to reflect the inflation risk attributable to operating a wastewater plant, including Labour earnings[3] Autodiesel[4], Electricity[5] and Chemicals[6]. The CSO Electricity index has the highest weighting in the WPI Index used (c. 40%) and therefore the WPI DBO portfolio is highly susceptible to changes in this index.

All contracts that include the WPI indexation clause were migrated as part of the legacy DBO contracts on establishment. IW's ability to change or influence the indexation clauses is restricted given they represent a contractual entitlement for the supplier under these legacy contracts. Table 2 illustrates that up until 2020, the fluctuations in the CSO Electricity Index did not materially exceed the projected HICP rate included in the RC3 decision. As an emerging issue requiring consideration, IW notified the CRU of the indexation risk to the DBO portfolio in its submission in respect of the RC3 reopener in 2021, and this trend has continued throughout 2022.

While IW has been successful in negotiating some commercially beneficial outcomes in respect of certain suppliers, legacy contract entitlements mean that this inflationary impact is beyond management control.

Energy costs

Water services are energy intensive and IW consumes c. 360 GWh per annum in electricity. IW is on track to reduce its energy consumption by 39 GW/h per annum by 2024 through the upgrading, replacement and optimisation of inefficient plant and processes. IW has also recently been recognised for its efforts in this area through being awarded 'Best Energy Achievement in Utilities and Public Sector' at the Business Energy Achievement Awards in 2021.

In addition to the actions being taken to reduce the volume of electricity used, IW has engaged in several procurement strategies to minimise the price impact of rising energy costs during RC3. IW completed a successful procurement process that ensured its electricity pricing was below market rates during 2019-2020. In 2021, IW introduced its electricity risk management policy and fully hedged its electricity costs for 2021 and 2022, protecting the consumer from peak spot

[3] EHQ11 Indices of Average Earnings and Hours Worked excluding Irregular Earnings (Industry B-E)

[4] WPM26 Wholesale Price Index – Autodiesel

[5] WPM26 Wholesale Price Index – Electricity

[6] WPM24 Industrial Price Index (Chemicals and Chemical Products - 20)

electricity costs during this time. Significant volatility in the market in 2022 limited IW to hedging c. 60% of its 2023 requirements at a comparatively higher price versus 2022 levels. This continuing volatility in the electricity market means that IW is unlikely to be able to hedge its remaining 2023 requirement at a price similar to prior years. Furthermore, the ability of electricity suppliers to even quote prices for long term trades is significantly impacted due to ongoing flux in the wholesale market.

IW has estimated the forecasted impact of the likely energy price increase for 2023 based on the same predicted electricity index included in Table 2. The resulting impact is quantified in section 3 of this submission and is real, material and beyond management control.

3. Quantifying the impact – WPI and SPU delay

IW has set out the key evidence of significant inflation impacts in section 2 of this submission. In this section, IW will outline its estimated quantum of these impacts on its controllable opex.

IW has limited the submission to 2023 for the following reasons:

- IW's funding is allocated from the Exchequer on an annual basis. A decision on 2023 opex is urgently required for Government budgetary processes which have been accelerated this year.
- Forecasts beyond 2023 are likely to be highly inaccurate given the current price volatility in the market.
- Any additional funding requirements that have occurred prior to 2023 have been, or are likely to be, funded via Government virement and IW proposes that these be addressed through the RC3 lookback and k-factor process.

Controllable opex per latest RC3 decision

The controllable opex figure approved by the CRU for 2023 is set out in Table 3 below in Real 2017 and nominal terms[7]

Controllable opex allowance approved	2023 Real 2017 prices €'m	2023 Nominal €'m
As per CRU/21093	675	746

Table 3 – Approved CRU controllable opex allowance for 2023

[7] Inflated at decision rate of 1.104

Impact of updating for actual HICP and latest forecasts

All of the options indicated in the consultation paper establish the need to update the HICP rates forecasted in the decision to the latest actuals and forecasts. IW has provided this information in Table 1 in section 2 of this submission and has analysed the impact in nominal and real terms in Table 4 below (using the original decision rate for consistency).

Controllable opex allowance analysis	2023 Real 2017 prices	2023 Nominal
As per CRU/21093	675	746
Revised inflation impact	29	32
Revised allowance using updated inflation rates	**704**	**778**

Table 4 – controllable opex allowance updated for latest HICP forecast

DBO legacy contracts

IW has explained the impact of material price inflation affecting the legacy DBO contract portfolio in section 2 of this submission. The impact of a 610% increase in Electricity WPI from 2017 to 2023 (as shown in Table 2) versus a 15% increase in actual HICP (shown in Table 1) is set out in Table 5 below in both nominal and real terms.

Energy costs

IW has outlined the significant challenge of energy price rises that are expected to impact in 2023 as well as the market constraints in fixing long term prices. As described earlier, IW has made significant progress in reducing the volume of electricity used and in implementing successful procurement strategies to mitigate price rises. Notwithstanding this progress, and the delivery of significant efficiencies and opportunity costs avoided, there is a material unavoidable impact of volatile electricity price rises that will result in increased costs in 2023. This projection has been included in Table 5 below in real and nominal terms.

Controllable opex allowance analysis	2023 Real 2017 prices	2023 Nominal
Revised allowance using updated inflation rates (Table 4 above)	**704**	**778**
DBO legacy contract - CSO Electricity index impact	117	129
Energy costs – CSO Electricity index impact	26	29
Revised allowance using specific differential inflation adjustment	**847**	**935**

Table 5 – controllable opex allowance updated for latest HICP and specific differential inflation adjustment for CSO Electricity index forecasted impact.

Efficiency gap arising caused by SPU (WIOF) programme changes

The CRU set out in its original RC3 decision (CRU19148) that *"if the WIOF programme does not progress over the period there will need to be a reassessment of Irish Water's operating costs (RC3 reopener)."* The subsequent unavoidable delay in the delivery of the SPU Programme formed the basis for the CRU decision to allow IW additional controllable opex allowances (the RC3 reopener or CRU/21093).

As part of the RC3 reopener, IW set out its targeted opex based on its SPU delivery assumptions as at the submission date in Q3 2021. These have now materially changed following the publication of the "Framework for future of water services" (Framework) [8]

For the first time, the Framework sets out a definitive timeline for the transition to a national water authority. The Framework assumes a gradual transition period to 2026, with IW beginning direct management of all water services staff from 1 January 2023.

While this represents a significant milestone, the Framework also sets new parameters and timelines which directly impact IW's opex need for 2023. Specifically, the associated Voluntary Redundancy scheme will not open to applications until the end of Q1 2024. This means that IW's 4% efficiency target for 2023 will not be achievable, resulting in an increased opex requirement versus the current approved allowance. IW now expects to deliver €3m of efficiencies in 2023 versus a target of €32m, an impact of €29m in nominal terms.

[8] Framework for the future of water services https://assets.gov.ie/228246/e424b58a-c6a6-4cf3-8381-1c6bd5897d2c.pdf

Summary opex requirement 2023

Taking all impacts into account, a full breakout of IW's forecasted controllable requirement for 2023 is set out below in real and nominal terms.

Controllable opex allowance analysis	2023 Real 2017 prices	2023 Nominal
As per CRU/21093	675[9]	746
Revised inflation impact	29	32
Revised allowance using updated inflation rates	**704**	**778**
DBO legacy contract - CSO Electricity index impact	117	129
Energy costs – CSO Electricity index impact	26	29
Revised allowance using specific differential inflation adjustment	**847**	**935**
Impact of SPU programme changes	26	29
Revised allowance requirement	**873**	**964**

Table 6 – controllable opex allowance requirement taking all impacts into account

[9] Published allowance per CRU/21093 is €681m – IW are adjusting downwards by €6m to take account of Right of Use assets (lease costs) that need to be funded by this allowance.

4. Analysis of options to mitigate price volatility

In consultation paper CRU/202267, the CRU has outlined three potential options to address inflationary pressures on IW's opex. These are summarised in the paper as:

1. HICP adjustment across RC3 period
2. HICP and a specific differential inflation adjustment
3. HICP adjustment across RC3 period with a specific differential inflation adjustment (ex post review)

IW has examined each of these options in detail in respect of their potential to address the forecasted pressures on IW's opex in 2023. IW's assessment is that Option 2 is the only feasible option and we set out this justification through an analysis of each option below.

1. HICP adjustment across RC3 period

The first option is to recalculate the allowed revenues based on outturn and forecast HICP figures. This option would meet the objective of addressing inflationary pressures in an environment where HICP fluctuations remained consistent with WPI (as had been broadly the case up until 2021). However, as set out in Table 1 and Table 2, the Electricity indices included in WPI have increased exponentially over comparable HICP movements forecasted to 2023. IW has set out in section 2 of this submission how significant elements of the cost base are unavoidably susceptible to electricity price movement and, as a result, this option would not fully address the pressures on IW opex.

IW has calculated the impact of implementing this option (in tables 4 and 6 above) as an additional €32m (nominal) in 2023. This would result in serious underfunding of the utility in 2023, with associated consequences.

2. HICP and a specific differential inflation adjustment

In section 2, IW set out several specific inflation pressures relating to the CSO Electricity index that would justify its use as a specific differential inflation adjustment for the affected areas of IW's cost base (DBO legacy contracts and energy costs). Use of this index would allow for appropriate funding of the utility's inflationary pressures during this time of significant price volatility. Importantly, a review of price movements can be undertaken to allow future revision of the 2023 allowance once actual outturn data (or a mid-year forecast) is available. This provides comfort that IW will not over-recover while ensuring that customers will not bear the risk of serious service disruption due to insufficient funding. There is similar regulatory precedent in other jurisdictions for up-front RPE allowances with annual true-up mechanisms (e.g. Ofgem[10]).

[10] https://www.ofgem.gov.uk/sites/default/files/docs/2021/02/final_determinations_-_core_document_revised.pdf

3. *HICP adjustment across RC3 period with a specific differential inflation adjustment (ex post review)*

The CRU noted in its consultation paper that IW is "impacted by the unique characteristics of its funding model - the Strategic Funding Plan (SFP). Irish Water is strictly constrained within the parameters of the CRU approved allowances, but it is the Government's Budget estimate process that sets the amount of expenditure allowed each year."

The Government Budget estimate process utilises the SFP to set the amount of expenditure allowed each year. The opex allowances included in the SFP have been historically constrained within the parameters of the CRU approved allowances and the Government has regard to the CRU decision in setting the amount of expenditure funded each year.

The structure of the funding model means that the maximum opex funding included in the Government's Budget estimate is constrained to the relevant latest approved CRU opex allowance. In the absence of any way for Irish Water to temporarily fund opex incurred over the allowance, this would result in an immediate funding shortfall in 2023 making an ex-post review ineffective.

Option 3 is therefore not viable given the unique funding structure of the utility.

5. Consequences and impacts of underfunding

IW has quantified its controllable opex requirement for 2023 and provided evidence that the cost pressures are real, material and beyond management control. The CRU consultation paper also requested IW to provide the consequences and impacts on service that may arise should IW not obtain an appropriate level of operational funding.

IW has considered this issue in detail and has assessed the operational shortfalls that would arise under the various funding scenarios. In summary, if Option 2 is not approved by the CRU, the consequences of Options 1 and 3 would be unsustainable. Funding deficits of such magnitudes would require drastic measures which would fundamentally impact the standard of water services provided to customers.

Given the commercial sensitivity, this paper does not include reference to the specific measures that would be required under the various funding scenarios. IW is happy to engage with the CRU to set out these implications. In prioritising the safety of water services for the public and staff, IW would have to respond to a serious funding shortfall through engagement with the CRU to determine the appropriate actions. It is clear from our assessment that such actions would involve very serious impacts and restrictions on water services in Ireland. Such an outcome would clearly have considerable long-term financial and reputational repercussions and would gravely damage our ability to meet national and EU water services policy commitments.

6. Conclusion

In this submission, IW has provided clear evidence that the inflationary and SPU impacts being experienced within the controllable opex cost base are real, material and outside of management control. In the context of constrained funding that is provided by the Exchequer, it is important for business planning that IW has regulatory stability and certainty. IW is therefore requesting the CRU to approve Option 2 (HICP and specific differential inflation adjustment), to utilise IW's suggested forecast index assumptions in its decision, and to revise the 2023 efficiency target based on the parameters of the recently announced Framework for the future of water services.

Importantly, a review of price movements can be undertaken to allow future revision of the 2023 allowance once actual outturn data (or a mid-year forecast) is available. This provides comfort that IW will not over-recover while ensuring that customers will not bear the risk of serious service disruption due to insufficient funding. The RC3 Look Back process will similarly enable a full, detailed review of IW's efficiency performance as it transitions to a national water services authority.

IW is happy to engage with the CRU on the contents of this submission and to provide any additional information required.

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