

# **RC4 Regulatory Framework – Uncertainty Mechanisms**

A report for CRU

30 May 2025

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# 1. Summary and Recommendations

In this report, we review Uisce Éireann's (UÉ) submission to the Commission for the Regulation of Utilities (CRU) on their proposed uncertainty mechanisms.<sup>1</sup> We also review the regulatory framework for dealing with uncertainty adopted by Ofwat in England and Wales (E&W) and by the Utility Regulator (UR) in Northern Ireland. Based on this review, we draw some recommendations for UÉ at RC4.

## **UÉ has proposed a comprehensive re-set of operating cost allowance on annual basis**

UÉ proposes a comprehensive re-set of operating and cost allowance at RC4 on an annual basis. UÉ proposes to submit funding request annually in May in advance of UÉ's Exchequer funding request to provide:

*"a latest (RC4 ex ante and ex post) position on UÉ's opex and capex allowances, based on UÉ's projections of pass through costs, activity/ volumes, verifiable market forecasts [...]"*.

UÉ proposes that the annual reset of allowances would be encompassing, including:

- Changes in government policy and environmental standards/legislation, e.g. "Housing for all" policy targets, new requirements under the Drinking Water Directive (DWD),
- Market and economic, e.g. changes in capital, energy prices, and
- Operational and executional risk, e.g. workforce shortages.

According to UÉ, such an approach would accommodate UÉ's funding model where, unlike Irish and UK network peers, it lacks flexible funding arrangements to deal with cost shocks and/or under performance against an ex-ante allowance. However, adopting an annual reset for a comprehensive set of factors would blunt incentives for UÉ to manage costs within ex ante allowance, i.e. it will remove the risk that UÉ faces in between price reviews and remove incentives to manage costs. At each reset, there is a risk that UÉ will identify cost increases but no offsetting decreases.

There is also a risk that changes to allowances, e.g. for change to government policy/environmental standards, cannot be mechanistic and could involve (subjective) assessment of costs which would increase regulatory costs from conducting an annual review.

The CRU's RC3 decision set out a limited set of uncertainty mechanisms for updating allowances at RC3, e.g. with nominal cost allowances determined ex ante and limited prescribed mechanisms for varying these allowances for changes in macroeconomic factors, such as changes in general price inflation and energy costs. However, in practice, CRU allowed for variations in input prices through successive interim reviews and end-of-period reviews at RC3.

We consider that some of UÉ's proposals, and notably in relation to adjusting allowances for changes to capital, design-build-operate (DBO) and energy price changes, have merit and reflect practice elsewhere, e.g. in E&W water sector, as we describe below.

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<sup>1</sup> UÉ (February 2025) UÉ Proposal Paper – Uncertainty Mechanisms Framework (2025-29).

### RC3 uncertainty mechanisms broadly reflect E&W arrangements with scope to make these more mechanistic

Table 1 provides a comparison of the main E&W risk sharing mechanisms and the analogous RC3 measures.<sup>2</sup> This shows that in large part the mechanisms that allow for variations in expenditure/allowed revenues permitted by CRU at RC3 broadly align to the E&W approach. A key difference is that RC3 mechanisms were not prescribed at the start of the RC3 period, but nonetheless UÉ made a number of submissions for interim reviews to allow for a range of factors, e.g. capital, and energy input prices.

**Table 1: Comparison of E&W risk sharing arrangements at PR24 and equivalent RC3 rules**

Type of mechanism	E&W (PR24)	Analogous RC3 measure
Indexation of allowed revenues	CPI indexation of allowed revenues on annual basis	✓ No set out ex ante – allowed at k-factor/ interim review
Cost-sharing	Approx. 50 per cent sharing of cost under or over-runs	✓ Rolling opex incentive mechanism
Cost pass-through	EA licence fees	✓ Licence fees/ levies
	Business rates	✓ Commercial rates
Real price effects	Real wage price effect	✗ No specified mechanism
	Real energy price effect	✓ No set out ex ante – allowed at k-factor/ interim review
	Real capital price effect	✓ No set out ex ante – allowed at k-factor/ interim review
Re-openers	Large projects	✓ Major projects (WSP and GDDP)
	Changed legal requirement/ land disposal (under relevant change of circumstance provisions, RCC)	✓ No specified provision - considered as part of k-factor review
Re-determination	Substantial effects clause	✗ No specified mechanism
Ex post review of outputs/ outcomes	Variation for changes in outputs (under RCC)	✓ Ex post review of outputs and outcomes
Volume driver	Number of connections	✗ No specified mechanism

<sup>2</sup> Note, the Table excludes a number of E&W risk sharing mechanisms relating to cost of debt, tax, and others that would not apply to UÉ given its funding model.

### **Northern Ireland framework provides for a principle-based approach to re-opening control**

The approach in NI provides an alternative approach to dealing with uncertainty relative to the prescribed approach in E&W. The price control framework for Northern Ireland Water (NIW) does not provide the same detailed provisions as those set out by Ofwat in E&W but instead describes the process and principles for assessing any claim by NIW for a variation in funding in the Memorandum of Understanding (MOU) and Consequential Written Agreement (CWA). For example, the principles include that the variation has to be outside of management control, meet a materiality threshold, and that NIW has to identify off-setting favourable effects.

The CWA also notes that uncertainty costs could be funded at review but the funding is retained by the Department until such a time as the uncertainty is resolved.

This offers an alternative (or potentially complementary) principles-based approach relative to the prescriptive approach in E&W.

### **For RC4, we recommend setting out explicit rules for those factors allowed at RC3 (as per Table 1 above)**

For opex, we propose mechanistic rules to address changes in general price inflation and input prices/RPEs relative to those assumed at review, namely:

- HICP,
- DBO indexation, based on a wholesale price index (WPI), and
- Energy costs, based on UÉ's own realised unit energy cost (and thereby allowing for wholesale and network price changes, and reflecting hedged contract positions).

We note that changes in these costs relative to those forecast at review constituted the main reasons for the series of interim reviews at RC3. In Appendix A, we have set out the detail of how the uncertainty mechanisms would work.

We recommend that the revenue allowance is updated for forecast HICP on an annual basis. We do not propose that DBO and UÉ energy costs are necessarily updated on an annual basis, but that it would be open to CRU and/or UÉ to propose an update, e.g. where CRU and/or UÉ considers that there has been a significant change in unit costs relative to the ex-ante forecasts at the review period. We propose that final allowances for RPEs are implemented as part of the k-factor review as at RC3, other than the algebra for making the adjustment will be agreed at review. Such explicit rules will provide UÉ with security of a "shadow allowance".

For capex, we propose that changes to outputs and funding levels are subject to a formal process, e.g. akin to the Change Control Protocol in NI. Such a mechanism is designed to address the funding and output variations that could follow during RC4, e.g. in relation to changes to the National Development Plan (NDP), and uncertainty for the latter years of capital funding.

As per RC3, we also propose that funding for Major Projects is ring-fenced, as at RC3 and capital input real price effects ("hybrid index") addressed at k-factor review, as at RC3, but the algebra for making adjustments for the hybrid index is explicitly set out (see Appendix A).

As per E&W, we consider that it is possible to adopt a connection volume cost driver. However, the experience in E&W highlights difficulty identifying unit costs by connection type and our recommendation is to use change control in event of material change and/or adjust allowance as part of k-factor review.

**Table 2: Summary of Recommended Uncertainty Mechanisms for RC4**

<b>Type of mechanism</b>	<b>Description</b>
<b>Indexation of allowed revenues (see Appendix A)</b>	Allowed revenues indexed with forecast HICP on an annual basis. The forecast error trued-up using outturn HICP as part of k-factor
<b>Cost pass-through</b>	Environment Agency licence fees included in allowances and trued-up as part of k-factor Business rates included in allowances and trued-up as part of k-factor
<b>Real price effects (see App. A)</b>	Real capital price effect based on “hybrid index” – ex ante allowance trued-up as part of k-factor Real energy price effect based on UÉ realised unit energy cost – ex ante allowance trued-up as part of k-factor (and within period if material forecast change) Real DBO price effect based on WPI – ex ante allowance trued-up as part of k-factor (and within period if material forecast change)
<b>Ring-fenced</b>	Funding for WSP and GDDP included as ring-fenced amounts with release of funding subject to separate CRU approval
<b>Re-openers</b>	Change protocol allows for reopening of price control for variations in outputs and/or funding, including NDP
<b>Ex post review of outputs/ outcomes</b>	Variation for changes in outputs and outcomes reviewed as part of k-factor review

## 2. Approach at RC3

### 2.1. Dealing with Uncertainty at RC3

At RC3, the regulatory framework explicitly allowed for variations in allowed revenues in relation to the following areas:

- **Cost pass-through:** Licences/levies and commercial rates are defined as uncontrollable costs.<sup>3</sup> That is, these would be trued-up at the end and allowed for in the k-factor adjustment at the end of RC3.
- **Rolling opex incentive mechanism:** As per CRU's approach for electricity and gas utilities, allowances for operating costs are fixed for the duration of the revenue control. If UÉ spends more than it is allowed, it bears the cost. On the other hand, if UÉ spends below what it is allowed due to making savings in an efficient manner, it can continue to earn that surplus for a specified period (i.e. 5 years).<sup>4</sup>
- **Major projects:** CRU provided ring-fencing in relation to major projects, given the uncertainty around the timing of the Water Supply Project (WSP) and the Greater Dublin Drainage (GDDP) project.<sup>5</sup> The arrangements provide for approval of expenditures outside of the RC3 process and timetable.

In addition, within the framework of the RC3 capex monitoring there is scope for UÉ to propose variation to outputs/outcomes, as we describe below.

In relation to inflation, at RC3 CRU assumed an ex ante HICP forecast to convert the revenue control from 2017 price base to nominal terms, and otherwise UÉ incurred inflation risk relative to forecast (although revenues were subsequently updated for outturn HICP at interim review and k-factor, as we explain below).<sup>6</sup>

CRU also allows for variations as part of the k-factor review. At IRC2, CRU set out the principles that it would draw on in assessing UÉ's k-factor submission and permitting any variation. We summarise these principles as follows:<sup>7</sup>

- Cost items that were explicitly treated as pass-through, namely, licence fees and levies and commercial rates.<sup>8</sup>
- Variations in costs relating to the application or change to specified legal requirements or changes in government policy.

<sup>3</sup> CRU (December 2019) Irish Water Revenue Control, Section 4.3.2. Available at [link](#).

<sup>4</sup> CRU (December 2019) Irish Water Revenue Control – RC3, section 5.2.1.

<sup>5</sup> CRU (November 2022) Irish Water Revenue Control – Interim Review, p.3.

<sup>6</sup> CRU (November 2022) Irish Water Revenue Control – Interim Review, p.11.

<sup>7</sup> CER/16/342 (12 December 2016), Irish Water Second Revenue Control, p.146.

<sup>8</sup> CER/16/342 (12 December 2016), Irish Water Second Revenue Control, p.114.

- For example, changes to government policy regarding billing (as per discontinuation of domestic billing); changes to legislation to the extent it applies to UÉ; changes to discharge consents and abstraction licences.
- Cost items that were explicitly not allowed for in full, or at all, in setting revenues.
- Recognition for the costs associated with additional outputs not funded at review where the outputs are in the customer interest (referred to as “logging-up” by UK water regulators).
- A deduction for the costs associated with additional outputs funded at review but no longer required (referred to as “logging-down” by UK water regulators).
- Failure of a company to deliver an output, for which was funding provided at IRC1 (or referred to as “shortfalling”).

The CRU concluded that:<sup>9</sup> *“The CER does not intend to vary allowances for general business risk, consistent with a revenue cap regime. Such an approach provides high-powered incentives for regulated entities to manage risks and costs, and benefits consumers in terms of lower costs.”*

### **2.1.1. In practice, UÉ applied for variation for wider set of circumstances**

In practice, UÉ has requested a reopening of the control for reasons other than specified in the RC3 decision. For example, following submission by UÉ, CRU allowed for variations in funding over RC3 to allow for:<sup>10</sup>

- Delays to the implantation of the single public utility (SPU) model,
- Higher inflation (as measured by HICP),
- Energy price inflation,
- Higher DBO costs, and
- Higher inflationary pressures on the capital programme, as measured by the “hybrid index”.<sup>11</sup>

## **2.2. Variations in Outputs**

CRU requires UÉ to report progress against and variations to the set of outputs agreed at review. The CRU requires UÉ to provide:

- Annual report on progress on R3 outputs and outcomes, as per Table 2.1; and
- Submission of an investment and output (I&O) spreadsheet which lists all projects/programmes funded at RC3, funding, expenditure and the associated

<sup>9</sup> CER/16/342 (12 December 2016), Irish Water Second Revenue Control, p.146.

<sup>10</sup> CRU (November 2022) Irish Water Revenue Control – Interim Review, p.10.

<sup>11</sup> Irish Water Revenue Control 3 – Interim Review, CRU/2022977, pp.38-39. Available at [link](#).

output/outcome. As a general point, we note that the I&O spreadsheet is very similar to the detailed data that NIW and SW provides as part of their annual reporting arrangements.

**Table 2.1: UÉ Provides Annual Report on outputs and outcomes, and likely variation**

Uisce Éireann's Outputs & Outcomes - RC3							
Outputs	Unit	RC3 2024 Target	2021 Delivered	RC3 Delivered to date	RC3 2024 Forecast	% of RC3	Notes
Number of new Treatment Plants (water and wastewater)	No.	29	5	9	24	83%	
Number of Existing Treatment Plants Upgraded	No.	89	16	24	66	74%	
Water Treatment Plant Capacity (Total ML/day) (i.e. total capacity from new/existing plants which have added capacity during RC3)	ML/day	625	249	496	1672	268%	
Wastewater Treatment Plant Capacity (Total Population equivalent)	PE	3,070,158	528,506	553,526	2,782,278	91%	
Number of Reservoirs Upgraded	No.	132	44	77	158	120%	
New Watermains (km)	km	496	63	110	317	64%	
Rehabilitated or lined mains (km)	km	511	178	309	619	121%	<sup>1</sup>
Meters installed	No.	50,815	17,903	25,047	82,296	162%	
New Sewers (km)	km	241	8	40	181	75%	
Rehabilitated Sewer (km)	km	342	18	28	222	65%	<sup>2</sup>
<b>Outcomes</b>							
Number of Water Treatment Plants with Ortho-phosphate Dosing	No.	27	2	8	34	126%	
Number of Water Supplies removed from the EPA's RAL	No.	48	16	27	55	115%	<sup>3</sup>
Reduction in the number of properties with risk of Microbiological Non Compliance	No.	563,093	27,515	347,851	1,095,289	195%	
Reduction in the Number of properties with risk of THM Non Compliance	No.	133,465	1,939	33,689	171,065	128%	
Number of Lead Services replaced	No.	13,231	5,418	8,400	31,919	241%	
Leakage Reduction (ML/day)	ML/day	176	41	79	176	100%	
Additional Water Supply Capacity (ML/day) (i.e. additional capacity added during RC3)	ML/day	46	17	34	108	235%	
Number of agglomerations removed from EPA's Priority Urban Area Action List	No.	75	19	30	47	63%	<sup>4</sup>
Wastewater treatment works compliant with Urban Waste Water Treatment Directive (Population Equivalent)	PE	314,656	312,640	314,656	314,656	100%	
Number of Wastewater Treatment Plants overloaded serving >2000 population	No.	1	0	1	1	100%	
Number of Wastewater Treatment Plants overloaded serving <2000 population	No.	1	1	1	1	100%	
Number of Agglomerations in the ECJ Urban Waste Water Treatment Directives	No.	13	2	3	8	62%	
Additional Wastewater Treatment Capacity (Population Equivalent)	PE	770,751	87,268	103,808	621,898	81%	
Number of Wastewater Treatment Plants compliant - EPA discharge increase ELVs	No.	8	2	5	8	100%	

*Table 1: Projected RC3 Outputs and Outcomes*

In terms of allowing for variations in outputs, relative to the approach in NI described below, the “change control process” (as described in UÉ’s annual submission<sup>12</sup>) appears to involve a unilateral proposed change in outcomes/outputs by UÉ, where UÉ itself identifies changes for factors including “changes in available funding” as well as “Macro-economic Environment – including Covid-19 and inflation” and “emerging need”.<sup>13</sup>

By contrast, the change control protocol processes in Northern Ireland are multi-party processes involving regulator, quality regulators and the network, as opposed to a unilateral proposal. The arrangements for output monitoring in NI involve the formation of groups comprising regulator,

<sup>12</sup> UÉ (February 2023) UÉ Capital Investment Plan Monitoring.

<sup>13</sup> UÉ (February 2023) UÉ Capital Investment Plan Monitoring, p.1.

government, quality regulators and the network to review the delivery of outputs.<sup>14</sup> We describe the approach in NI in more detail in Section 4.2.

Also, UÉ has included a much wider set of factors to justify potential changes to outputs/outcomes than envisaged in NI. For example, delayed delivery of outputs – the NIW Change Protocol notes that it expects delays to be made up with greater progress on other projects.<sup>15</sup>

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<sup>14</sup> See for example: UR (May 2021) Price Control 2021027, Final Determination – Annex M, Change Control Protocol, pp.4-5.

<sup>15</sup> For example, NIW Change Protocol states that *"The change protocol is not intended to apply to project delay which does not affect the overall outputs delivered in the Price Control period. NIW is expected to manage its programme of works, where practical accelerating projects to counter delayed experienced in other projects."* UR (May 2021) Price Control 2021027, Final Determination – Annex M, Change Control Protocol, p.5.

## 3. UÉ's Proposals for RC4

### 3.1. Overview of UÉ's Proposals

UÉ's RC4 submission identifies four types of mechanism:<sup>16</sup>

- Pass-through costs – e.g. levies, LA rates and energy network costs;
- An asset-linked volume driver – e.g. amount of testing and sampling required under the new Drinking Water Directive;
- An index-linked cost driver – e.g. DBO contract prices; and
- Targeted re-opener – for material, unanticipated requirements which arise after the CRU's RC4 decision. Note, UÉ does not believe it would be appropriate to use a materiality threshold as used elsewhere, given its funding model.<sup>17</sup>

UÉ proposes that the uncertainty mechanisms are forward-looking where possible, i.e. the allowances adjust with verifiable price index forecasts such as HICP, electricity wholesale price index, etc.<sup>18</sup>

In terms of process, UÉ proposes to issue a report to CRU in May each year in advance of UÉ's Exchequer funding request for the following year and would provide "*a latest (RC4 ex ante and ex post) position on UÉ's opex and capex allowances, based on UÉ's projections of pass through costs, activity/ volumes, verifiable market forecasts [...]*".<sup>19</sup>

The UÉ paper identifies the following factors that it considers could not be reliably factored into the SFP:<sup>20</sup>

#### **Macro**

- Government policies – e.g. changes in "Housing for All" policy targets;
- Changes in funding – e.g. from the government review of investment for the 2027-29 period;
- Additional investment requirements – e.g. potential obligations in relation to Developer Provided Infrastructure (DPI); and
- A shift in environmental standards/ legislation – e.g. new requirements under the Drinking Water Directive.

#### **Market and economic:**

- Rising inflation – e.g. energy and DBO contract costs;
- Commodity price volatility;

<sup>16</sup> UÉ (February 2025) UÉ Proposal Paper – Uncertainty Mechanisms Framework (2025-29), p.4.

<sup>17</sup> UÉ (February 2025) UÉ Proposal Paper – Uncertainty Mechanisms Framework (2025-29), p.12.

<sup>18</sup> UÉ (February 2025) UÉ Proposal Paper – Uncertainty Mechanisms Framework (2025-29), p.4.

<sup>19</sup> UÉ (February 2025) UÉ Proposal Paper – Uncertainty Mechanisms Framework (2025-29), p.5.

<sup>20</sup> UÉ (February 2025) UÉ Proposal Paper – Uncertainty Mechanisms Framework (2025-29), pp.6-8.

- Rising mandatory input costs – e.g. energy network costs; and
- Economic downturn.

### **Operational and execution risks**

- Workforce shortages;
- Supply chain disruptions.

### **Environmental and social risks**

- Pandemic or weather events;
- Delays in planning and/or consents.

UÉ notes that in the absence of flexible funding, it is essential that UÉ's RC4 revenue allowances are reviewed annually to ensure they are sufficient.<sup>21</sup>

For opex, UÉ has identified a wide range of potential reasons for adjusting cost allowances in its separate opex submission. The reasons include:<sup>22</sup>

- New requirements under the Drinking Water Directive in relation to laboratory testing and sampling. UÉ notes that it has requested €8m additional funding but the funding requirement could be as high as €45 million;
- New obligations under the Urban Waste Water Treatment Directive (UWWTD); and
- Energy network cost changes.

## **3.1.1. Adjusting for RPEs**

### **Hybrid index for capex**

In November 2022, the CRU allowed UÉ to access €556 million (2017 prices) of ring-fenced capex originally intended to fund Major Projects. The CRU decided to increase the allowed funding because of higher capital real price effects (RPEs), higher-than-expected HICP, and the virement of funding from capex to opex. Capital RPEs accounted for the majority of this allowance, totalling €357 million (2017 prices), and were based on the hybrid input price index developed by UÉ.<sup>23</sup>

UÉ's hybrid index is based on a weighted average of six different sub-indices, as detailed in Table 3.1. UÉ determined the weights for these sub-indices by assigning a suitable index to each of 18 capex cost categories and then determining the total share of each index in overall capex.<sup>24</sup>

<sup>21</sup> UÉ (February 2025) UÉ Proposal Paper – Uncertainty Mechanisms Framework (2025-29), p.9.

<sup>22</sup> UÉ (2024) UÉ Revenue Control 4 (2025-29), Operational expenditure look-forward, 2025-29. p.34.

<sup>23</sup> Irish Water Revenue Control 3 – Interim Review, CRU/2022977, pp.38-39. Available at [link](#).

<sup>24</sup> Irish Water Capital Expenditure Submission Response to CRU/202267 Irish Water Revenue Control 3 – Interim Review Consultation, dated July 2022, p.5. Available at [link](#).

**Table 3.1: Sub-indices in UÉ's hybrid index**

<b>Name</b>	<b>Weight</b>	<b>Description</b>
Sectoral Employment Orders (SEO)	27%	Tracks government mandated industry wide minimum pay increases.
Quarterly Earnings and Labour Costs Index – Construction Sector (CSO)	34%	Tracks changes in the cost of labor across the Irish construction sector, reflecting changes in average weekly earnings. Compiled by the Central Statistics Office (CSO) on a quarterly basis.
Wholesale Price Index – Building and Construction Materials (CSO)	20%	Tracks changes in wholesale prices across a range of construction materials (e.g., cement, reinforcing metal, structural steel). Compiled by the CSO on a monthly basis.
Wholesale Price Index – Energy Products (CSO)	2%	Tracks changes in wholesale prices of fuel purchased by manufacturing industry. Compiled by the CSO on a monthly basis.
Harmonised Index of Consumer Prices (HICP)	9%	Measures the change over time in the prices of consumer goods and services in Ireland. Used as the price control index.
BEAMA Index	9%	Tracks changes in costs in mechanical and electrical materials. Compiled by the UK manufacturing trade association for the electrotechnical sector, BEAMA, on a monthly basis.

Source: NERA-analysis of i) Irish Water Capital Expenditure Submission, Response to CRU/202267 Irish Water Revenue Control 3 – Interim Review Consultation, dated July 2022, pp.7-8. Available at [link](#); UÉ response to Q&A Q42, dated 25 February 2025.

### **Index for DBO costs**

For DBO contracts, UÉ explains that approximately 50 per cent of the portfolio is based on contracts indexed by the wholesale price index (WPI), applicable to the variable element of the plant's costs. UÉ explains that the WPI reflects electricity, wages, auto-diesel and chemicals, with the electricity index having the highest weighting at 40 per cent.<sup>25</sup>

UÉ incorporates a reduction of €25 million for reduction in input costs by the end of RC4, where the average annual cost is around €160 million per year, i.e. it expects an approximately 15-20 per cent reduction in unit costs by the end of the period relative to end RC3.<sup>26</sup>

### **Index for Energy costs**

For UÉ own energy costs (i.e. excluding DBO), UÉ forecasts a reduction in unit cost by the end of the period of €31 million, or approximately 25 per cent reduction, principally in the first year of RC4.<sup>27</sup>

UÉ's energy costs are mainly linked to WPI.<sup>28</sup> UÉ also notes that increases in network charges, which increased UÉ's costs by €11 million, also affect charges and that the network energy component could be treated as a cost pass-through.<sup>29</sup>

## **3.2. Conclusions on UÉ's Proposals**

UÉ proposes to submit a funding request annually in May in advance of UÉ's Exchequer funding request. UÉ's proposal would provide for a comprehensive re-set of water charges reflecting a wide range of factors such as changes to pass-through, activity/volumes, market forecasts for input prices.

Such a comprehensive annual reset would blunt incentives for UÉ to manage costs within the ex ante allowance, i.e. it will remove the risk that UÉ faces in between reviews and incentives to manage costs.

There is also a risk that changes to allowances, e.g. for changes to government policy or environmental standards, cannot be mechanistic and could involve (subjective) assessment of costs which could impose relatively high regulatory burden.

However, we also consider that some of UÉ's proposals, and notably in relation to adjusting allowances for changes to capital using its "hybrid index", DBO and energy price changes, are reasonable and reflect practice elsewhere, e.g. in E&W water sector as we explain in the following Section.

<sup>25</sup> UÉ (2024) UÉ Revenue Control 4 (2025-29), Operational expenditure look-forward, 2025-29 p.14.

<sup>26</sup> UÉ (2024) UÉ Revenue Control 4 (2025-29), Operational expenditure look-forward, 2025-29 pp.14&20. Total DBO costs are €800 million over RC4 or €160 million p.a.

<sup>27</sup> UÉ (2024) UÉ Revenue Control 4 (2025-29), Operational expenditure look-forward, 2025-29 pp.14&20. Total energy costs are €601 million over RC4 or €125 million p.a.

<sup>28</sup> UÉ (2024) UÉ Revenue Control 4 (2025-29), Operational expenditure look-forward, 2025-29 p.20.

<sup>29</sup> UÉ (2024) UÉ Revenue Control 4 (2025-29), Operational expenditure look-forward, 2025-29 p.20.

## 4. Uncertainty Mechanisms in Comparable Regimes

In this section, we describe the uncertainty mechanisms applied in the E&W water sector. We also describe the principled approach adopted for NI.

### 4.1. E&W

In this section, we discuss the uncertainty framework that Ofwat applied at PR19, as well as Ofwat's intended approach at PR24. Ofwat allows for:

- Reconciliation mechanisms which can lead to upward or downward reconciliation of costs generally at the end of the price control; and
- Notified items which potentially allow for determinations to be reset within period.

#### 4.1.1. Reconciliation mechanisms

Ofwat has yet to publish its reconciliation models for PR24. For PR19, Ofwat identified around 20 different areas for reconciliation either within period or at end of period. Many of these are clearly not relevant to the regulation of UÉ, e.g. because they are finance related such as tax and cost of debt true-ups. There are also cost and outcome delivery incentive (ODI) end-of-period true-ups, analogous to the operation of the k-factor applied to UÉ.

Aside from these, the remaining reconciliation mechanisms of potential relevance to UÉ include:<sup>30</sup>

- A reconciliation mechanism for environmental obligations associated with the Water Industry National Environment Programme (WINEP), the costs of which were not confirmed in advance of the price control taking effect.<sup>31</sup>
- A reconciliation for the number of connections (or developer services). Prior to PR19, the amount of allowed revenue was not automatically adjusted for the volume of connections. That is, a water company would not be allowed to automatically recover additional revenue from an increase in the number of connections but would be expected to bear any increased costs. At PR19, Ofwat introduced an approach that compensates companies for variation in connections relative to those allowed at review, based on an assumed unit rate.<sup>32</sup>
- A reconciliation mechanism for real wage effects (as part of the cost or totex reconciliation mechanism). In the ex-ante allowance at PR19, Ofwat provided for an uplift for real price effects based on OBR forecasts for real wage growth relative to CPIH. At PR24, Ofwat will allow for a reconciliation between the Office for Budget Responsibility (OBR) forecast and the change in the ASHE index<sup>33</sup> multiplied by the estimated share of labour in totex of around 40 per cent.<sup>34</sup>

<sup>30</sup> See <https://www.ofwat.gov.uk/regulated-companies/price-review/2024-price-review/pr19-reconciliation-models/>.

<sup>31</sup> Ofwat (December 2019), PR19 final determinations: TMS – Cost efficiency final determination appendix, p.10.

<sup>32</sup> Ofwat (2019) PR19 final determinations: Our approach to regulating developer services. Available at [link](#).

<sup>33</sup> ASHE stands for annual survey of hours and earnings, as published by the Office for National Statistics. See <https://www.ons.gov.uk/surveys/informationforbusinesses/businesssurveys/annualsurveyofhoursandearningsashe>.

<sup>34</sup> Ofwat (December 2020), PR19 reconciliation rulebook consultation – reconciliation model guidance, p.24.

At PR24, Ofwat will extend the scope of the reconciliation mechanism for RPEs to include materials costs and energy costs, as we discuss below. We also set out the approach adopted by Ofgem at the most recent energy price determination (RIIO-2).

#### 4.1.2. Adjusting for Real Price Effects (RPEs)

At PR24 Ofwat decided to allow for RPEs for specific cost categories. As shown in Table 4.1, it allowed ex-ante allowances and/or ex-post true-ups for labour costs, enhancement materials costs, energy costs and retail costs.

**Table 4.1: Ofwat PR24 RPEs**

Cost category	Ex-ante RPE	Ex-post true-up	Index
Base wholesale labour costs	Yes	Yes	ONS manufacturing wages index
Enhancement wholesale labour costs	Yes	Yes	ONS construction index
Enhancement materials, plant and equipment costs	No	Yes	ONS new infrastructure COPI index
Energy costs	Yes	Yes	DESNZ electricity price index
Retail costs	Yes	No	OBR wage growth forecast
Base materials, plant and equipment costs:	No	No	-
Chemicals costs	No	No	-
Other costs	No	No	-

Source: Ofwat, PR24 final determinations: Expenditure allowances, dated February 2025, pp.274-275, available at [link](#).

Ofwat's decision on RPEs is based on analysis by its consultant CEPA, which provided the following recommendations for the various cost categories:

- **Labour costs:** CEPA recommended ex-ante RPEs for labour costs (base and enhancement), and an ex-post true up at the end of the price control. It considered labour costs sufficiently material to justify this, explaining that labour costs account for more than 10 per cent of PR24 base opex and capital maintenance expenditure (or taken together, referred to as botex or base totex). It also explains that the OBR forecasts a non-zero wedge between CPIH inflation and earnings growth over PR24.<sup>35</sup> Ofwat decided on an ex-ante labour RPE of 0.98 per cent on average across PR24 based on CEPA's analysis.<sup>36</sup>
- **Materials, plant and equipment (MPE):** While this cost category met CEPA's materiality threshold of 10 per cent of botex, CEPA considered that any volatility in base expenditure MPE prices should be manageable by companies, pointing to historical RPEs close to zero. However, CEPA did recommend RPEs for enhancement MPE, given its higher share in total costs and higher risk of underfunding. CEPA did not recommend an ex-ante RPE for

<sup>35</sup> CEPA, PR24 Draft Determinations, Frontier Shift, Real Price Effects and the energy crisis cost adjustment mechanism, dated 28 June 2024, p.60, available at [link](#).

<sup>36</sup> Ofwat, PR24 final determinations: Expenditure allowances, dated February 2025, p.273. Available at [link](#).

enhancement MPE but an ex-post true up for outturn differences between CPIH and the ONS New Work Infrastructure Construction Prices Index (COPI).<sup>37</sup>

- **Energy costs:** Given elevated and volatile wholesale energy prices in the lead up to PR24, CEPA recommended a new energy cost RPE mechanism. It explained that Ofwat’s benchmarking regressions are run on a dataset of 10 years of historical data, which is dominated by pre-energy crisis periods. As a result, CEPA saw a risk that allowances based on these regressions would underfund energy costs over PR24 if prices remain above longer-term historical levels. It therefore recommended an ex-ante uplift factor to the modelled energy cost allowances, based on the ratio between the DESNZ industrial energy price index at the time of the decision and the average index value over the historical modelling period. Moreover, it recommended applying a forecast of the DESNZ index as an ex-ante RPE. There will then be an end-of-period true-up mechanism to account for outturn energy prices as reflected by the index.<sup>38</sup> CEPA and Ofwat expect the energy cost RPE to be a one-off feature of the PR24 price control. CEPA explains that it is meant to address temporary energy price volatility and that incentives for companies to actively manage their energy costs should be retained at subsequent reviews.<sup>39</sup>
- **Retail costs:** Ofwat allowed for an ex-ante retail cost RPE of 0.5 per cent, based on CEPA’s estimate of the difference between expected nominal wage growth (2.5 per cent) and long-term CPIH (2.0 per cent). It does not allow for ex-post RPE indexation of retail costs, to retain incentives for companies to manage input price pressures.<sup>40</sup>
- **Chemicals:** CEPA did not recommend an RPE for chemicals, as it deemed this cost category to be relatively immaterial, at 2-4 per cent of botex. It also explained that based on historical data, there is limited evidence of chemicals RPEs.<sup>41</sup>
- **Other costs:** CEPA also did not recommend an RPE for “other” costs, which are material (more than 10 per cent of botex) but which it considered include a wide variety of cost types, for which there is no clear alternative to CPIH indexation.<sup>42</sup>

Overall, Ofwat’s ex-ante RPEs comprised a labour cost RPE of 0.98 per cent (base and enhancement), a retail cost RPE of 0.5 per cent, and an energy cost RPE of around 1.2 per cent.<sup>43</sup>

<sup>37</sup> CEPA, PR24 Draft Determinations, Frontier Shift, Real Price Effects and the energy crisis cost adjustment mechanism, dated 28 June 2024, p.61. Available at [link](#).

<sup>38</sup> CEPA, PR24 Draft Determinations, Frontier Shift, Real Price Effects and the energy crisis cost adjustment mechanism, dated 28 June 2024, pp.91-94. Available at [link](#).

<sup>39</sup> CEPA, PR24 Draft Determinations, Frontier Shift, Real Price Effects and the energy crisis cost adjustment mechanism, dated 28 June 2024, p.5. Available at [link](#).

<sup>40</sup> Ofwat, PR24 final determinations: Expenditure allowances, dated February 2025, p.275, available at [link](#). CEPA, PR24 Draft Determinations, Frontier Shift, Real Price Effects and the energy crisis cost adjustment mechanism, dated 28 June 2024, p.49. Available at [link](#).

<sup>41</sup> CEPA, PR24 Draft Determinations, Frontier Shift, Real Price Effects and the energy crisis cost adjustment mechanism, dated 28 June 2024, p.61. Available at [link](#).

<sup>42</sup> CEPA, PR24 Draft Determinations, Frontier Shift, Real Price Effects and the energy crisis cost adjustment mechanism, dated 28 June 2024, p.61. Available at [link](#).

<sup>43</sup> Ofwat reports an energy cost adjustment of GBP 1.3 billion across the sector, which is equal to 1.2 per cent of its baseline allowances (before RPEs and frontier shift efficiency). Ofwat, PR24 final determinations: Expenditure allowances, dated February 2025, pp.2&53. Available at [link](#).

The ex-ante RPE allowances were more than offset by Ofwat’s application of a 1 per cent annual efficiency challenge to ex-ante totex (“frontier shift efficiency”). Ofwat based its annual efficiency challenge on analysis by CEPA, which considered historical Total Factor Productivity (TFP) growth in comparable industries outside the water sector.<sup>44</sup> Taken together, RPEs and frontier shift efficiency resulted in a 2 per cent reduction in sector-wide totex allowances over PR24.<sup>45</sup>

### 4.1.3. Redetermination

Under the provisions of Condition B of a company’s licence, companies can also request an interim determination of price controls (known as an IDoK) where a materiality threshold has been exceeded in regard to the following matters:

- Relevant changes of circumstances and any Notified Items; and
- Circumstances having a substantial adverse or favourable effect on the Appointed Business.

However, historically at least companies have rarely invoked these mechanisms. We describe these mechanisms below.

#### 4.1.3.1. Relevant Changes of Circumstance<sup>46</sup>

The Ofwat framework allows water companies to apply for a reset of their price limits between the regular five-yearly price reviews, referred to as an Interim Determination of K, in the event of specific changes leading to a material reduction in revenues and/or increase in costs. In the same way, Ofwat can seek to revise price limits if specified changes occur with a materially increase a company’s revenues and/or decrease its costs.

The specific changes which may lead to an IDoK include i) Relevant Changes of Circumstances (RCCs) or ii) Notified Items (NIs).

Relevant changes of circumstances are defined in companies’ licences (Condition B) and include: i) RCC(1): A new or a changed legal requirement; ii) RCC(2): Differences in proceeds of land disposals from those assumed at setting price limits; and iii) RCC(3): Failure to achieve an output for which funding was provided at last review.

#### 4.1.3.2. Notified Items

Notified Items (NIs) reflect items which are not allowed for in full or at all in the price limits. Notified Items are set by Ofwat at the review. Ofwat has determined very few Notified Items at PR19 and mainly related to uncertainty over the timing of the delivery of large schemes.<sup>47</sup> At PR24, Ofwat has identified a greater number of NIs relating to:<sup>48</sup>

<sup>44</sup> Ofwat, PR24 final determinations: Expenditure allowances, dated February 2025, p.261. Available at [link](#).

<sup>45</sup> Ofwat, PR24 final determinations: Expenditure allowances, dated February 2025, p.2, Table 1. Available at [link](#).

<sup>46</sup> See <http://www.ofwat.gov.uk/regulated-companies/price-review/interim-determinations/>.

<sup>47</sup> Ofwat has provided bespoke NIs for Bristol Water, Anglian Water and Affinity Water, as well as water companies that might need to deliver a direct procurement for customers’ scheme. Source: Ofwat (December 2019), PR19 final determinations: Aligning risk and return technical appendix, p.37.

<sup>48</sup> Ofwat (2024) PR24 final determinations: In-period adjustments appendix, p.16.

- Bioresources (sludge spreading) – covering legal changes in relation to the application of fertilizer to land from sludge;
- Large schemes gated process – which covers the costs of developing large schemes (> £100m) that are not fully allowed for at the price control. For example, at PR19, for Thames Water, Ofwat included two conditional allowances of £180 million for a Water Strategic Supply Resilience Programme (WSSRP) and £300 million for London Water Improvement (LWI) scheme. To receive funding, TMS has to progress both programmes through Ofwat’s five gated-process to unlock these conditional allowances, e.g. where the gate involve evaluation of options, detailed design, and eventual delivery;<sup>49</sup>
- PFAS – to ensure drinking water safety with respect to PFAS required from drinking water inspectorate (DWI);<sup>50</sup> and
- Cyber security.

The application for an IDoK is subject to so-called triviality and materiality thresholds. In the past, the revenues and costs associated with all IDoK items must exceed a materiality threshold of 10 per cent of the company’s turnover to qualify for an IDoK. Individual IDoK items for which the associated change in revenues costs does not exceed a triviality threshold of 2 per cent of the company’s turnover are not considered by Ofwat in the overall materiality test.<sup>51</sup>

However, at PR24, Ofwat intends to lower the materiality threshold and its working assumption is that the threshold will be at most 2 per cent of appointed business turnover.<sup>52</sup>

#### 4.1.3.3. Substantial effects determination

Companies can also request Ofwat for a change in price limits if unforeseen circumstances which are beyond prudent management control result in a significant reduction in revenues and/or increase in costs (Significant Adverse Effect)<sup>53</sup> Similarly, Ofwat may re-set price limits if unforeseen circumstances result in a significant increase in revenues and/or reduction in costs (Significant Favourable Effect).

The Substantial Effects Determination is applicable in a wider set of circumstances than the specific conditions defined for IDoKs and is subject to a higher materiality threshold of 20 per cent of the company’s turnover.

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<sup>49</sup> Ofwat (December 2019), PR19 final determinations – TMS cost efficiency additional information appendix, pp.9&17.

<sup>50</sup> This stands for per and poly fluoroalkyl substances (PFAS).

<sup>51</sup> For a description of the practical application of the IDoK provision see: Ofwat (November 2013), Final determination of TMS’s IDoK application. Available at [link](#).

<sup>52</sup> Ofwat (2024) PR24 final determinations: In-period adjustments appendix, p.18.

<sup>53</sup> See <http://www.ofwat.gov.uk/regulated-companies/price-review/substantial-effect-determinations/>.

## 4.2. Northern Ireland

Over the current regulatory period that cover the period from April 2021 to March 2027, the UR sets a revenue allowance based on a building block approach.<sup>54</sup>

As a general comment, the PC21 price control framework does not provide the same detailed provisions for dealing with uncertainty as those set out by Ofwat in E&W.

Rather the provisions for altering the PC21 determination are set out in the consequent written agreement (CWA) of the Memorandum of Understanding (MOU), as we discuss below.<sup>55</sup>

### 4.2.1. MOU and CWA

The Department and regulator have agreed a MOU and CWA.<sup>56</sup> The objectives are to:<sup>57</sup>

- (a) ensure the co-operation and the exchange of information between them; and*
- (b) the consistent treatment of matters which affect both of them.*

The MOU (agreed in 2010) documents the agreement between the Department for Regional Development (DRD) and the UR as to their respective functions in the economic regulation of NIW (i.e. stating that DRD has responsible for policy and acts as shareholder, whereas the UR is the economic regulator).<sup>58</sup>

Notably, in relation to price controls, the parties recognise:<sup>59</sup>

- *The Department agrees that the Price Control process will be the methodology for determining the funding bids which will be made on behalf of the Undertaker [NIW];*
- *The Regulator recognises that its determination of future prices/spending should be based on agreed public expenditure levels; and*
- *Once public expenditure is confirmed, the Department will approve an Undertaker's [NIW's] business plan which is in line with a determination.*

In summary, these points commit the Department as the shareholder to accepting the regulator's determination as the business plan for NIW, e.g. as opposed to funding a plan that reflects NIW's view of costs.

The MOU also recognises the constraints that the funding model imposes, namely, the lack of flexibility between funding years, the requirement for expenditure by NIW to conform to available

<sup>54</sup> UR (May 2021), Water & Sewerage Services Price Control 2021-27, PC21 FD – Main Report, pp.15&19.

<sup>55</sup> UR (May 2021) The Consequent Written Agreement, Final Determination, Annex D. Available at [link](#).

<sup>56</sup> MOU (May 2021), Water and Sewerage Services Price Control 2021-2027, Final Determination, Annex C; Consequent Written Agreement (May 2021), Water and Sewerage Services Price Control 2021-2027, Final Determination, Annex D. Available at [link](#).

<sup>57</sup> MOU (May 2021), Water and Sewerage Services Price Control 2021-2027, Final Determination, Annex C, para. 1.1.

<sup>58</sup> Memorandum of Understanding (2010), Water and Sewerage Services Price Control 2021-2027, Final Determination, Annex C. Available at [link](#).

<sup>59</sup> Memorandum of Understanding (2010), Water and Sewerage Services Price Control 2021-2027, Final Determination, Annex C, para. 4.1.1

budget and the annual basis for funding control, and therefore the need to allow for funding alterations within year.

The MOU notes that any request for alteration of funding by NIW will be referred to both parties for joint review. A request for an alteration by NIW must meet the materiality threshold of £0.5 million.<sup>60</sup>

The MOU also allows for the provision of funds for uncertain items to be included within the public expenditure bid but noting that any such provisions must be held by the Department and only made available to NIW in accordance with agreed procedures for an alteration to funding.<sup>61</sup>

The MOU also establishes formal arrangements for discussions and information sharing between the Department and UR, e.g. through the Output Review group (which informs stakeholders on progress on outputs).<sup>62</sup>

The CWA sets out the agreed public expenditure associated with PC21 agreed by all parties, and provides detailed arrangements for altering the funding levels, setting out the criteria for assessing changes to funding limits, the timetable, the involvement of other parties, and noting that NIW must make a joint submission to the Department and regulator.<sup>63</sup> We discuss these arrangements for altering the funding level below.

### **General requirement**

The CWA requires NIW to make a joint bid for any change to the revenue determination to the Department and UR.<sup>64</sup> The UR and the Department will consider the following in their joint consideration of the proposals:

- The materiality threshold;
- Whether the factor was within NIW's control or ability to mitigate, noting that costs of responding to exceptional circumstances or actions by NIW that fall outside Ministerial Guidance may be considered outside NIW's control; and
- The extent to which NIW has presented off-setting cost savings.

### **Variations to the capital programme**

The CWA notes that where NIW requests a variation in the capital programme, the following principles will apply:<sup>65</sup>

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<sup>60</sup> Memorandum of Understanding (2010), Water and Sewerage Services Price Control 2021-2027, Final Determination, Annex C, para. 4.1.2.

<sup>61</sup> Memorandum of Understanding (2010), Water and Sewerage Services Price Control 2021-2027, Final Determination, Annex C, para. 4.1.4.

<sup>62</sup> Memorandum of Understanding (2010), Water and Sewerage Services Price Control 2021-2027, Final Determination, Annex C, para. 4.3.4.

<sup>63</sup> Consequent Written Agreement (May 2021), Water and Sewerage Services Price Control 2021-2027, Final Determination, Annex D, section 2.

<sup>64</sup> UR (May 2021) The Consequent Written Agreement, Final Determination, Annex D, para. 6

<sup>65</sup> UR (May 2021) The Consequent Written Agreement, Final Determination, Annex D, para. 16

- Reductions to the UR’s capital determination will be achieved primarily by reducing expected outputs, not by reducing capital maintenance; and
- The balance of outputs removed will be prioritised with stakeholders.

The CWA also sets out a timetable and steps for funding review process.<sup>66</sup>

### **Spend to save funding**<sup>67</sup>

The CWA also sets out some conditional funding for spend to save such as funding of voluntary early retirement that NIW will have to bid for, and then it will be a matter for the Department to consider if funding is available.

### **4.2.2. Mid-term review**

The UR decided to undertake a mid-term review of NI Water’s performance against PC19 Final Determination. In particular, UR gives the opportunity to review tariffs to account for:<sup>68</sup>

- Any material change to capital funding determined through the change control protocol including any material increase or decrease in capital maintenance investment (see below for a description of the change control process);
- Any material change in customer numbers and demand; and
- Any material change in costs which could not be defined with certainty in the business plan.

The UR also notes that it limits the scope of the mid-term review so that the incentives of a 6-year price control are maintained. It notes that the following issues will not be considered at mid-term review: return on capital; operational and capital cost efficiency; general changes in opex, such as power or labour costs.<sup>69</sup>

### **4.2.3. Redetermination**

As in E&W, under the provisions of Condition B of NIW’s licence, NIW can also request an interim determination of price controls (known as an IDoK) where a materiality threshold has been exceeded in regard to:<sup>70</sup>

- Relevant changes of circumstances and any Notified Items; and
- Circumstances having a substantial adverse or favourable effect.

These work in the same way as in E&W, as we discussed in Section 4.1.3.

<sup>66</sup> UR (May 2021) The Consequent Written Agreement, Final Determination, Annex D, Table 4.

<sup>67</sup> UR (May 2021) The Consequent Written Agreement, Final Determination, Annex D, Table 3, para 5.

<sup>68</sup> UR (May 2023), Water & Sewerage Services, PC21 Mid-term Review Approach, p.21.

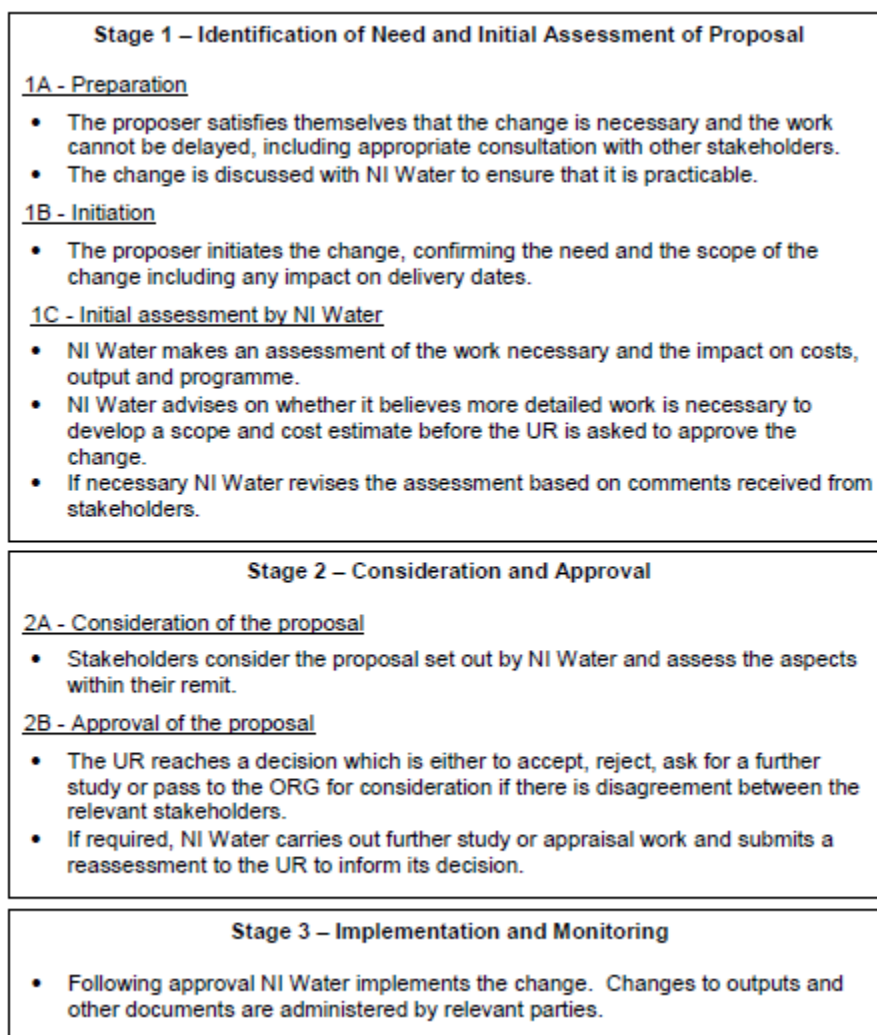
<sup>69</sup> UR (May 2021) PC21 Final Determination, Main report, p.104.

<sup>70</sup> DRD (May 2016) Northern Ireland Licence, Condition B, para 1.3, p.9. Available at [link](#).

### 4.2.4. Change Control Process

Specific outputs – including summary outputs and nominal outputs – are subject to a formal Change Control Protocol during PC21, as per previous reviews. UR describes the change protocol in its Final Determination, and sets out the procedures and steps that the key statutory stakeholders will follow to control changes to outputs. The aim of the protocol is to provide a structured framework for managing change and ensuring that: changes have been agreed by stakeholders; that the necessary funding is available; and, that changes are reflected in associated documentation and monitoring processes.<sup>71</sup>

**Figure 4.1 Overview of change control process**



The change control process allows for NIW to change the delivery of certain Price Control Outputs listed in its Final Determination by the UR. Changes may be initiated by all stakeholders including NIW. Typical scenarios envisaged under the application of the Change Protocol include:

<sup>71</sup> See Change Control Protocol. Available at link.

- NIW proposes a change in the regulatory outputs;
- DRD, Drinking Water Inspectorate NI (DWI NI), Environment Agency NI (NIEA), or NIW identify a change in priority and decide to seek a change in the outputs;
- New objectives are identified by any party including the Minister; and
- Other circumstances with the agreement of the Output Review Group (ORG).

As set out in Figure 4.1 above, the initiation of the change protocol can be done by any interested stakeholder; it follows a streamlined sequence of events whereby:<sup>72</sup>

- **Stage 1: Identification of Need and Initial Assessment:** An initial assessment is carried out such that only "*changes which are practical and have stakeholder support*" are taken forward for more detailed assessment. NIW proposes a cost estimate or a plan for producing a detailed plan and cost assessment. The detailed process under stage 1 includes:
  - Preparation: A change is discussed at the ORG meetings, including a discussion of whether the change is essential and urgent, or whether it can be delayed to next Price Review;
  - Initiation: It is expected that the change will be initiated by any ORG party, including DRD, NIEA, DWI NI and NIW, but that NIW will prepare the majority of the submission;
  - Initial Assessment by NIW, whereby the company will set out impact on targets and costs involved.
- **Stage 2: Consideration and approval:** This stage is comprised of two sub-stages:
  - **Consideration of Proposal**, whereby the issuing party will determine if the change can be progressed by consulting a number of stakeholders, depending on the type of change required. Annex A of the Change Protocol envisages the following circumstances:
    - a) If the proposed change requires a change to the social and environmental guidance (S&EG), this shall be discussed with the DRD Water Policy Division (WPD). DRD WPD shall consult other stakeholders, before making a recommendation to the DRD Minister. The change protocol proposal (CPP) may only progress after a change to the Guidance has been authorised;
    - b) If the proposed change impacts on legislative, Quality Regulation requirements, or compliance date, the relevant Quality Regulator (NIEA or DWI) shall determine if the change is acceptable. The CPP may only progress after these impacts have been accepted;
    - c) If the proposed change impacts on Regulatory Outputs (including any date) defined in the Monitoring Plan then the UR, in consultation with DRD WPD, shall determine if the proposed change should proceed to the next stage. The CPP may only progress after these implications have been accepted;
    - d) Confirm that CCNI has been consulted on the impact of the change on consumers and the service they will receive;

<sup>72</sup> The sequence of events is detailed in Annex A of the Change Control Protocol.

- e) Check that the UR has confirmed that the company's estimated change to cost is reasonable, including the completion of any Reporter audit as described in Section A2, Appendix A;
  - f) Where the UR confirms that there will be material changes to NIW's costs in delivering the revised outputs, check that DRD has confirmed that public expenditure cover will be available to allow the change to proceed; and
  - g) Once the above consents have been obtained, the issuing party forwards the change request to the UR.
- **Approval of proposal:** Once UR receives the proposal, it will contact the relevant stakeholders to notify that a change control request has been submitted, will ask that them to confirm that they have been consulted, make any final representations, confirm that they accept the change and confirm whether further approval by DRD or DFP is required to allow change to proceed.
  - **Following the reply from stakeholders,** UR can accept or reject the proposal, or ask for revisions. When there are significant disagreements between stakeholders, UR can refer the matter to the ORG.

The change control process applies to specific outputs of the Price Control including:

- Nominated wastewater treatment works improvements;
- Nominated unsatisfactory intermittent discharge (UID) improvements;
- Nominated water treatment works improvements;
- Nominated trunk main and water resources schemes; and
- Nominated service reservoir and clear-water tank improvements.

The change control process also applies to overall changes to the general sewerage and water mains activities and the overall service level improvements to address low water pressure and sewer flooding. However, the change control process is not intended to apply to the prioritisation of general activities or non-specific outputs included in PC21 FD. For example, the following provide examples of those outputs/activities explicitly excluded from the change control process:

<sup>73</sup>

- *The selection and prioritisation of schemes to deliver overall sewerage and water mains activities;*
- *The selection and prioritisation of schemes to deliver the service level improvements to address low pressure or sewer flooding; and*
- *The work carried out by NI Water to maintain its assets.*

The change control process is not intended to apply to project delay which does not affect the overall outputs delivered in the Price Control period. NIW is expected to manage its programme of works, where practical accelerating projects to counter delays experienced on other projects.

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<sup>73</sup> See: Change Control Protocol, para 1.7. Available at [link](#).

### 4.2.5. End of period review

At the end of the review period, UR undertakes an analysis of the outputs delivered, and to correct for any variation relative to those funded at review. The UR refers to this process as “logging-up/down”, borrowing the terminology used by Ofwat in E&W.

The UR notes that the process of logging up and logging down investment reflects the value of the outputs delivered.<sup>74</sup>

*“Where an additional output is delivered, the post efficiency cost of delivery is ‘logged up’ by adding the value of the output to the RCV; and*

*Where an agreed output is not delivered, the value of the output is ‘logged down’ by deducting the value of the output from the RCV.”*

UR assesses logging up and logging down at a capital sub-programme level. However, where more analysis of expenditure and outputs adds value, UR has undertaken a detailed assessment of change to individual outputs, or groups of outputs, within a sub-programme.

## 4.3. Conclusions

Ofwat sets out a very prescriptive approach to dealing with uncertainty. Our comparison suggests that the de facto adjustments applied at RC3 (through both prescribed mechanisms and the unforeseen interim reviews) aligns closely with the uncertainty mechanisms allowed for by Ofwat. In particular, we note that Ofwat will allow for changes in materials, energy and labour input prices at PR24, analogous to proposed changes for DBO and energy costs requested by UÉ.

By contrast to Ofwat’s prescriptive approach, the Northern Ireland framework provides for a principle-based approach to re-opening the price control. Arrangements for updating the price control are set out in MOU and Consequential Written Agreement (CWA) between the government and the regulator.

The MOU recognises the constraints that the funding model imposes and the need to allow for funding alterations within control period. The MOU allows for provision of funds for uncertain items to be included within the public expenditure bid, subject to:

- Any such provisions must be held by the Department; and
- Only made available to NIW in accordance with agreed procedures for an alteration to funding.

In making a joint bid for any change to the revenue determination to the Department and UR, UR and the Department consider the materiality of the claim and whether the factor was within NIW’s control or ability to mitigate.

In our recommendations in Table 2 in Section 1, we have set out a set of prescribed reopeners along the lines of the approach taken in E&W. However, such an approach does not necessarily preclude the principle-based approach adopted in NI.

<sup>74</sup> UR (2017) PC15 Final Determination, Annex I, p. 5. Available at [link](#).

## Appendix A. Proposed HICP and RPE Mechanisms

We have developed algebra for updating HICP and RPEs within period and ex post (i.e. at k-factor review), amending the RC4 funding model. This Appendix describes the principles underlying the algebra, which is set out in a separate Excel file accompanying this report.<sup>75</sup>

### A.1. HICP<sup>76</sup>

The RC4 revenue model incorporates an ex-ante forecast for HICP, drawing on Central Bank of Ireland forecasts.<sup>77</sup> The model allows for the HICP forecast to be updated within period relative to the forecast. Specifically, the HICP forecast for the upcoming year can be updated based on updated forecasts published by the Central Bank of Ireland in its latest available Quarterly Bulletin.<sup>78</sup> UÉ's final allowance will be based on outturn HICP and undertaken at the k-factor review.

### A.2. Real capital price effects<sup>79</sup>

We propose that UÉ's capital cost allowance is updated for capital input prices based on the hybrid index, as proposed by UÉ and adopted for the RC3 look-back.<sup>80</sup> We consider that the constituent indices provide a reasonable proxy for the likely changes in capital input prices faced by UÉ.

The model incorporates an ex-ante forecast of the hybrid index values over the RC4 period. We propose that the ex-ante allowance is then trued-up based on the outturn hybrid index values as part of the k-factor review.

We do not propose a within-period update of the hybrid index given the relatively short review period and the absence of robust market-based forecasts for most of the constituent indices of the hybrid index.

### A.3. Real energy price effects<sup>81</sup>

We propose that UÉ's cost allowance is updated for the unit cost of energy. In the absence of a market-based measure of unit energy costs, we propose that the allowance is based on UÉ's outturn energy unit cost, which will reflect market-based wholesale costs, other costs (such as network, retail), as well as reflect UÉ's hedging of wholesale electricity.

<sup>75</sup> See filename: "250528 RC4 Revenue Model – NERA draft – RPE\_excerpt.xls" ("RPE mechanism Excel file").

<sup>76</sup> See Section "General inflation – Harmonised Index of Consumer Prices, Ireland", tab "RC4" of the RPE mechanism Excel file.

<sup>77</sup> Forecast from Central Bank of Ireland, Quarterly Bulletin Q4 2024. Available at [link](#).

<sup>78</sup> The model is set up to retain the ex-ante forecast where no ex-ante update is made. Actual (i.e., historical) HICP inflation values for t-1 do not need to be reflected as part of the within-period update at time t, since these will be reflected at the final k-factor review. The same applies to the energy price effect and DBO price effect mechanisms described below.

<sup>79</sup> See Section "Capital cost indexation", tab "RC4" of the RPE mechanism Excel file.

<sup>80</sup> See section 3.1.1.

<sup>81</sup> See Section "Energy cost indexation" in tab "RC4" of the RPE mechanism Excel file.

Our proposed model derives UÉ's implied energy unit cost set at review based on UÉ's business plan.<sup>82</sup> The model allows for an update of the expected unit energy cost during the period for the upcoming year, e.g. to accommodate changes to wholesale electricity prices, and recalculates the allowance based on the updated unit cost multiplied by MWh volumes identified at review.

In setting out proposed within-period changes to energy costs, we recommend that CRU and/or UÉ should provide justification for changes in unit costs, e.g. drawing on spot and/or future wholesale energy cost forecasts.

The model derives the final allowed unit energy cost based on UÉ's outturn energy cost and outturn MWh, which will be undertaken as part of the k-factor review.

Under the proposed approach, UÉ's passes through its outturn unit energy cost, where we assume UE is largely a price-taker, but incurs all volume risk, providing strong incentives to reduce energy consumption.

#### **A.4. Real DBO price effects<sup>83</sup>**

We propose that UÉ's cost allowance is updated for outturn DBO unit costs.

The proxy for DBO unit cost is based on an index proposed by UÉ that is made up of four different wholesale producer indices (WPI) published by the Central Statistics Office (CSO), namely electricity, labour earnings, auto-diesel and chemicals. We consider that the constituent indices provide a reasonable proxy for the likely changes in DBO prices faced by UÉ.

The model derives UÉ's implied DBO unit cost set at review based on UÉ's business plan.<sup>84</sup> It allows for an update of the expected unit DBO cost during the period, e.g. to accommodate changes to wholesale electricity prices, and recalculates the allowance based on the updated forecast WPI index values.

In setting out proposed within-period changes to DBO costs, we recommend that CRU and/or UÉ should provide justification for changes in costs, e.g. drawing on spot and/or future wholesale energy cost forecasts (as energy costs make up the majority of the DBO index).

UÉ's final DBO costs allowance will be based on the outturn WPI sub-indices as published by the CSO, as undertaken as part of the k-factor review.

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<sup>82</sup> Source: 20241202 Uisce Éireann Revenue Control 4 (2025-2029) Operating Expenditure Look Forward FINAL.pdf, p.20. Note: UÉ ex-ante forecast of energy cost RPEs, which are used to calculate implied annual % energy cost RPE in tab "RPEs"

<sup>83</sup> See Section "Real DBO price effects", tab "RC4" of the RPE mechanism Excel file.

<sup>84</sup> Source: 0241202 Uisce Éireann Revenue Control 4 (2025-2029) BPQ FINAL.xlsx. Note: UÉ ex-ante forecast of DBO costs as per BPQ.



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