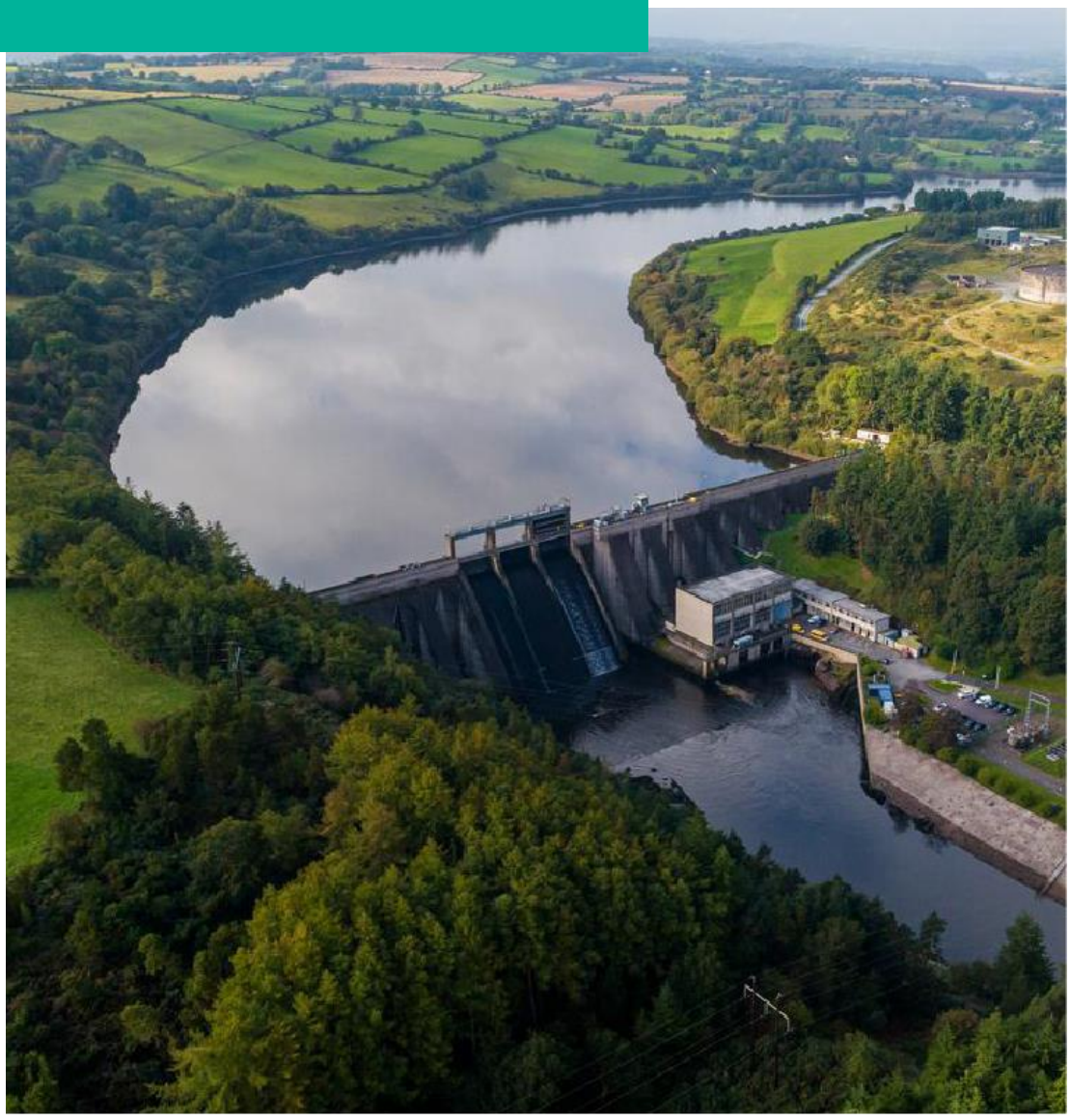
3rd July 2024

Policy Decision

Customer Information Paper

Non-Domestic and Trade Effluent Tariff Framework



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1. Introduction

Uisce Éireann (UÉ) assumed responsibility for water supply and wastewater services on 1st January 2014. Current water supply and wastewater tariff arrangements are set out in the Water Charges Plan (WCP)[1].

Since 1st October 2021, non-domestic customers are charged in line with the Non-Domestic Tariff Framework as approved by the Commission for Regulation of Utilities (CRU) on 3rd July 2019[2]. The Framework introduced harmonised charging arrangements for the supply of water to non-domestic premises and for removing wastewater from those premises. The Framework was extended to also provide the basis for charging public Group Water Schemes from 1st October 2022. The Framework replaced the previous wide range of non-domestic tariff levels, tariff categories, methodologies, applications, and billing arrangements overseen by the Local Authorities (LAs) which resulted in over 500 separate charges for the provision of water and wastewater services to non-domestic customers across the country[3].

Given the wide range of tariff rates, structures and rules that were previously in existence across the country, moving to a harmonised Framework meant tariff changes (a decrease or an increase) for most customers. It was important that transitional arrangements were put in place to ensure that the impact of the change was reduced, and that customer bill changes could be implemented smoothly in an equitable manner. Non-Domestic connections facing an increase in their annual bill of €250 or greater therefore transition to the new enduring tariff rates over 3 years, commencing on 1st October 2021. Public Group Water Scheme connections facing an increase in their annual bill of €250 or greater also transition to the new enduring non-domestic tariff rates, but over 2 years, commencing on 1st October 2022.

The CRU's 2019 decision provided for enduring tariff levels to remain unchanged throughout the 3 (or 2) year transition period concluding on 30th September 2024, and to only apply a change from 1st October 2024 if a material increase or decrease is warranted based on updated allowed revenues, connections, and volume data. UÉ assessed and concluded there is a material difference between RC3 allowed revenues[4] for the calendar year 2024 and the calendar year 2019 allowed revenue (on which current tariffs are set) and also updated connection numbers and volume data. On the basis of this analysis, an increase in the non-domestic tariff levels is required.

The CRU's Non-Domestic Tariff Framework decision in 2019 also provided for UÉ to maintain the existing LA trade effluent charging arrangements for an interim period until an enduring trade effluent charging policy is introduced.

Trade effluent refers to wastewater with a higher strength than 'sanitary wastewater'. Separate charges for trade effluent are generally applied by water services utilities on the basis that it is more costly to treat. Such charges are typically calculated based on both the volume and the strength of pollutants in the wastewater. While such trade effluent charging

[1] Updated Water Charges Plan November 2023
[2] CRU Decision on UÉ's Non-Domestic Tariff Framework 3rd July 2019
[3] This evolved under the previous water industry structure, overseen by 34 different LAs and 10 Town Councils
[4] Allowed revenues included in the assessment reflects the CRU's RC3 interim review published in November 2022.

arrangements currently exist in some LA areas, they are not applied consistently throughout the country.

Recognising the inequity and complexity of the current trade effluent charging arrangements, the CRU requested UÉ to provide a submission setting out trade effluent tariff design options and a proposal for integrating enduring trade effluent charging arrangements into an updated Non-Domestic Tariff Framework. The CRU provided UÉ with a set of regulatory tariff principles to guide the design of the updated Framework.

On 21st December 2023, the CRU published its consultation paper[5] and two papers submitted by UÉ on the Non-Domestic Tariff Framework. The papers were:

- Non-Domestic Tariff Design and Alignment proposals[6] – a technical paper, which considers UÉ's proposed updates to the tariff design for water and wastewater tariffs and new non-domestic water and wastewater tariffs to apply to non-domestic customers on 1st October 2024; and
- Trade Effluent Tariff Design Review proposals[7] – a technical paper, which considers UÉ's proposed tariff design for enduring trade effluent tariffs and their integration into the Non-Domestic Tariff Framework, including proposals on the geographical basis for charging customers, customer classification, cost allocation, and tariff structure.

The CRU sought views from the public on each of UÉ's proposals during a 9 week public consultation concluding on 22nd February 2024. The CRU considered the responses to the public consultation before reaching a Decision on the updates to the Framework and the new non-domestic water and wastewater tariffs to apply on 1st October 2024.

The CRU has now published its Decision. The purpose of this Customer Information paper is to help non-domestic customers and stakeholders understand the impact of the CRU's Decision. Rationale for each element of the Decision can be found in the CRU's Decision paper and in UÉ's Non-Domestic tariff design and alignment proposal and Trade Effluent Tariff Design Review proposal papers.

1.1 When will tariffs change?

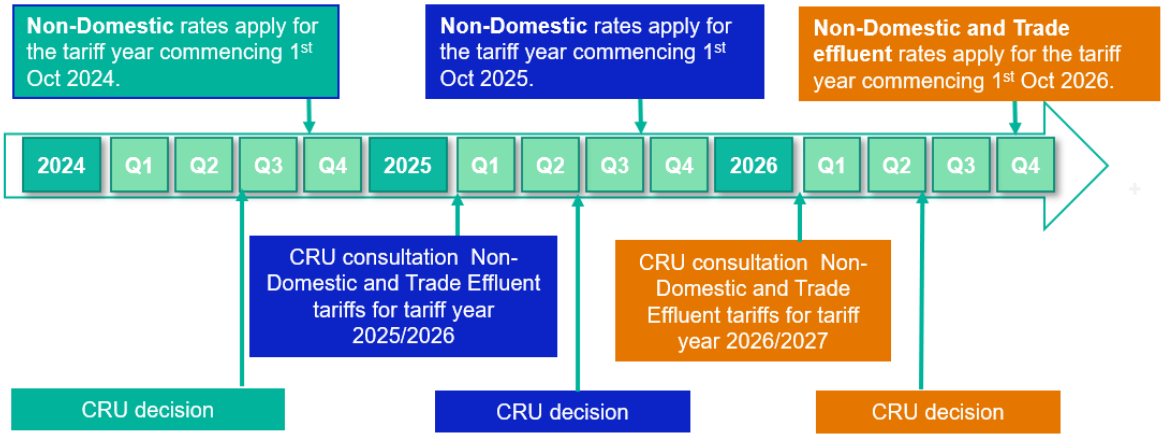
Non-domestic water and wastewater tariffs will be updated to reflect UÉ's allowable revenue for year 5 (2024) of Revenue Control 3 ('RC 3') for the tariff year commencing on **1st October 2024**. A second phase of consultation will be required to update water and wastewater tariff levels to reflect UÉ's up to date allowable revenue for the tariff year commencing on **1st October 2025**.

The CRU's Decision provides for indicative trade effluent tariffs only. The CRU's Decision has established that new national trade effluent charges will not apply to trade effluent customers until 1st October 2026. This is to provide customers with sufficient time to plan for the change

[5] CRU2023149 Consultation Paper - Uisce Éireanns Non-Domestic and Trade Effluent Tariff Framework
[6] CRU2023150 Uisce Éireann - Non-Domestic Tariff Design Review and Alignment Proposals
[7] CRU2023151 Uisce Éireann - Trade Effluent Tariff Design Review Proposals

and to enable UÉ make the necessary system and operational change to implement national trade effluent charging arrangements. As part of a future consultation, new trade effluent tariffs will be set to reflect UÉ's up to date allowable revenue for 2026 and will apply from **1st October 2026**.

Figure 1. Timelines for tariff changes



1.2 Structure of the paper

This paper is structured as follows:

- **section 2** summarises the CRU's decisions on the non-domestic tariff design and bill capping arrangements to apply on 1st October 2024;
- **section 3** summarises the CRU's decisions on the trade effluent tariff design and its integration into an updated Framework;
- **section 4** sets out non-domestic water and wastewater tariffs to apply on 1st October 2024 and indicative trade effluent tariffs reflecting the CRU's Decision;
- **section 5** provides a series of case studies demonstrating how the tariffs will be applied to customer's bills;
- **section 6** sets out the approach to communicating tariff changes to non-domestic customers and provides information on some key supports available;
- **section 7** sets out the next steps in the process following the CRU's Decision; and
- **section 8** assesses how the annual charges faced by non-domestic customers for water, wastewater and trade effluent services compare internationally.

2. CRU Decision on Tariff Design – Water & Wastewater

This section summarises how the CRU's Decision applies to water and wastewater tariffs and is structured as follows:

- **section 2.1** outlines the geographical basis for charging;
- **section 2.2** outlines how non-domestic customers are classified into different tariff classes;
- **section 2.3** outlines how the costs of providing water and wastewater services are allocated to the different classes;
- **section 2.4** outlines how the water and wastewater tariffs are structured;
- **section 2.5** outlines the bill capping arrangements that will apply on 1st October 2024;
- **section 2.6** sets out the tariff application rules for water and wastewater tariffs.

2.1 Geographical basis for charging (national versus regional charging)

Water and wastewater tariffs for both metered and unmetered connections will continue to apply on a national basis.

2.2 The basis for classifying customers for water supply and wastewater charges

Five separate tariff classes will apply to metered connections (Band 1, Band 2, Band 3, Band 4, and Band 5) for the provision of water supply services. Four separate wastewater tariff classes will apply to metered connections (Band 1, Band 2, Band 3, Band 4) for the provision of wastewater services. The metered tariff classes will be differentiated by annual consumption as set out in table 2.1 below.

Further classes are added to accommodate the integration of national trade effluent charging arrangements into the Non-Domestic Tariff Framework. They will apply to connections licensed to discharge trade effluent into UÉ's wastewater network and are described in greater detail in section 3.

Table 2.1 Classifying customers for water and wastewater charges

Water Services Customer Classes			
Water Supply		**Wastewater Services**	
Tariff Category	**Annual Consumption m^3**	**Tariff Category**	**Annual Consumption m^3**
Band 1	Less than 1,000m^3	Band 1	Less than 1,000m^3
Band 2	Between 1,000m^3 and 19,999m^3	Band 2	Between 1,000m^3 and 19,999m^3
Band 3	Between 20,000m^3 and 249,999m^3	Band 3	Between 20,000m^3 and 249,999m^3
Band 4	Between 250,000m^3 and 2,299,999m^3	Band 4	Equal or greater than 250,000m^3
Band 5	Equal to or greater than 2,300,000m^3	Trade Effluent	Licenced to discharge trade effluent

A customer connection will continue to be classified based on prior year's usage data (or wastewater discharge for wastewater only connections). For each metered tariff class, there will continue to be a separate charge for water and wastewater services.

There will continue to be two unmetered tariff classes for water and wastewater services with a single, flat charge per service. Unmetered Band 1 charges are set equivalent to a small non-domestic user. Unmetered Band 2 charges are set, at a level commensurate with the charges applied to metered customers using 1,000m^3 per annum.

2.3 How the costs of providing water and wastewater services are allocated to each customer class

The CRU approves the efficient costs that UÉ is allowed to recover for its various functions (functionalised costs) under a separate Revenue Control process. Tariff design focuses on allocating functional costs to cost components. This facilitates the collection of allowed revenues from customer classes. Cost Allocation analysis allows the matching of revenue recoverable from particular customer classes to the costs they generate. The CRU's Decision allocates costs to customer classes on a Fully Allocated Cost (FAC) basis.

UÉ's cost allocation analysis reflecting the CRU's Decision is explained in detail in Appendix 1. This analysis results in an assessment that revenue from non-domestic tariffs should contribute 23.99% of total allowed revenue. This reflects the costs of providing water and wastewater (including trade effluent) services to the non-domestic sector. Table 2.2 compares

the CRU decision on the non-domestic cost allocation to the current non-domestic contribution to allowed revenue recovery.

Table 2.2 Cost Allocation to the Non-Domestic sector

Category	Service				Overall
	Water Supply	Waste water	TE	Other	Total
Current Cost Allocation	11.25%	8.76%	1.54%	1.43%	22.98%
CRU Decision Cost Allocation	12.00%	5.92%	5.22%	0.84%	23.99%

2.4 How water and wastewater tariffs will be structured

Water and wastewater tariffs will continue to be structured in the following way:

- Application of tariffs to non-domestic customers on a per connection basis;
- Application of separate tariffs per service (i.e., water, wastewater);
- Application of a national domestic allowance[8] of 213m^3 per annum for mixed-use[9] connections;
- Application of two-part metered tariffs, with a fixed (standing charge) and variable (volumetric charge) component, for all metered connections; and
- Application of a flat charge per service (i.e., water, wastewater) to all unmetered connections (unmetered Band 1 and 2).

Tables 2.3 and 2.4 set out the proportional split to be recovered from the standing and volumetric charge components for water supply and wastewater collection services respectively. These tables result from the application of the CRU's Decision to the recovery of functional costs through the standing charge and the volumetric charge.

[8] The domestic allowance represents the portion (volume in m^3) of water used or wastewater collected for domestic purposes in a mixed-use premises.
[9] Connections providing water services for both non-domestic and domestic purposes at a premises are termed 'mixed-use'.

Table 2.3 Proportional split between standing and volumetric charges – water supply

Water supply – % revenues recovered through standing and volumetric charges		
Customer Class	Applicable from 1st October 2024	
	Standing Charge	Volumetric Charge
Non-domestic overall	11%	89%
Band 1	28%	72%
Band 2	4%	96%
Band 3	4%	96%
Band 4	5%	95%
Band 5	6%	94%

Table 2.4 Proportional split between standing and volumetric charges – wastewater services

Wastewater services – % revenues recovered through standing and volumetric charges		
Customer Class	Applicable from 1st October 2024	
	Standing Charge	Volumetric Charge
Non-domestic overall	9%	91%
Band 1	26%	74%
Band 2	2%	98%
Band 3	4%	96%
Band 4	2%	96%

2.5 Bill capping arrangements – water and wastewater services – 1st October 2024

The following water and wastewater service customers will move immediately onto 2024/2025 enduring tariffs:

a. Customers whose annual bill is expected to increase by less than €750; and
b. Customers whose annual bill is expected to increase by €750 or more but less than 75% based on their previous year's consumption.

Water and wastewater tariff levels applicable up to 30th September 2024 are set to reflect UÉ's allowed revenue for 2019 as approved by the CRU. Accordingly, recognising that tariff levels have not risen to reflect the rising cost base over that period, the CRU has decided to mitigate the impact of a significant bill change for the 2024/2025 tariff year for some customers.

To mitigate the impact of a significant bill change for the 2024/2025 tariff year, a 75% cap will be applied on the maximum annual increase allowed for non-domestic customers facing a bill increase of €750 or more. Approximately 500 non-domestic connections will benefit from the introduction of a 75% cap on the maximum increase allowed in the 2024/2025 tariff

year. Section 6 of this paper provides a number of case studies to demonstrate examples of customers who will benefit from the application of the cap.

A similar monetary bill impact threshold and bill capping arrangement (to that applied on 1st October 2024) will be provided for water and wastewater connections on 1st October 2025 and will apply for the 2025/2026 tariff year.

2.6 Non-Domestic tariff application rules

The CRU's decision sets out the following rules that should apply when assigning non-domestic connections to a tariff class.

Table 2.4 Tariff application rules

Item	Rule
1.	Annual Quantity (AQ[10]) is the only basis for assigning a connection to a tariff class (with some limited exceptions). All connections should pay the tariff rates associated with their assigned tariff class as a general rule.
2.	Any connections may challenge their AQ and their assigned tariff class for the next tariff year but must provide supporting evidence that the assigned AQ is not reflective of the connection's expected water usage (or wastewater discharge for wastewater only connections) in the next tariff year and must be open to site visits by UÉ.
3.	If UÉ denies a connection's request to change tariff class, it will provide written reasoning to the connection to explain its decision. Where a customer and UÉ cannot agree on the customer's disputed assigned AQ, the customer can raise a complaint regarding the dispute to the CRU under the CRU's non-domestic complaints process.
4.	UÉ will inform customers that they have the right to challenge their AQ and their assigned tariff class and will provide a reasonable timeframe for customers to submit a challenge.
5.	Any connection that reduces its annual water use (or wastewater discharge for wastewater only connections) to the extent that it should move tariff class, but would see a higher annual bill in the new assigned tariff class (at the newly assigned AQ) than it would if it continued to be assigned to its current tariff class, can request to stay on its current tariff class for the next tariff year, and UÉ will automatically accept such requests. For clarity, all connections will be charged the tariff rates that are applicable on 1st October of the prevailing tariff year. UÉ shall inform connections that are moving to a lower tariff class and would see a higher annual bill in the new assigned tariff class (at the newly assigned AQ) than it would if it continued to be assigned to its current tariff class, that they have the right to request to stay assigned to their current tariff class.

[10] For more information on UÉ's AQ process see here

3. CRU Decision on Trade Effluent Tariff Design

The existing Non-Domestic Tariff Framework does not contain harmonised charging arrangements for the provision of trade effluent services. This section summarises the CRU's Decision on new harmonised trade effluent charging arrangements to apply to UÉ's trade effluent connections and is structured as follows:

- **section 3.1** outlines the geographical basis for charging;
- **section 3.2** outlines how trade effluent customers are classified into different tariff classes;
- **section 3.3** outlines how the costs of providing water and wastewater (including trade effluent) services are allocated to the different classes;
- **section 3.4** outlines how the trade effluent tariffs are structured; and
- **section 3.5** considers trade effluent implementation, transition arrangements and tariff application rules.

3.1 Geographical basis for charging trade effluent customers (national versus regional charging)

Trade effluent tariffs for both metered and unmetered connections will apply on a national basis.

3.2 The basis for classifying customers for trade effluent charges

A trade effluent tariff category with three separate tariff classes (Trade Effluent Category 1, Trade Effluent Category 2, and Trade Effluent Category 3) will apply to those connections licensed to discharge trade effluent into UÉ's wastewater network. Trade effluent customers will be classified for trade effluent charges based upon a combination of their primary business activity and annual consumption as set out in table 3.1. A trade effluent customer's classification will be reviewed annually based on the most recent, if any, changes to the business activity and the most recent consumption data.

Table 3.1 Classifying customers for trade effluent charges

Trade Effluent customer classes	
Trade Effluent Tariff Category	**Combination of Business Activity & Annual Consumption (m^3)**
Trade Effluent Category 1	• Commercial Activities; and • Industrial Activities[11] with annual consumption less than 1,000m^3 or unmetered
Trade Effluent Category 2	• Industrial Activities with annual consumption between 1,000m^3 and 249,999m^3
Trade Effluent Category 3	• Industrial Activities with annual consumption equal to or greater than 250,000m^3

Trade Effluent Categorisation (TEC) codes are used to categorise trade effluent customers into defined Commercial Activities and Industrial Activities based on similarities in the strength of wastewater discharged. UÉ assigns business activities a TEC code description and number which reflects the primary activity and relative strength of effluent discharged by each customer discharging trade effluent.

A detailed description and guide to the TEC codes that will be used to classify Commercial and Industrial Activities is contained in Appendix 3. Commercial Activities and Industrial Activities are summarised as follows:

- **Commercial Activities**

For customers undertaking 'Commercial Activities' as outlined in Appendix 3, UÉ considers that the wastewater discharged, while legally a trade effluent discharge, is insignificant in volume and/or strength. As it is likely to pose a low operational risk to the compliant operation of the network and/or receiving treatment plant, such discharge can reasonably be expected to require a lower level of compliance and licensing management. Examples of Commercial Activities are service stations, swimming pools, healthcare facilities, food service establishments (FSEs) and caravan parks (for a full list see Appendix 3, table A.3.2).

- **Industrial Activities**

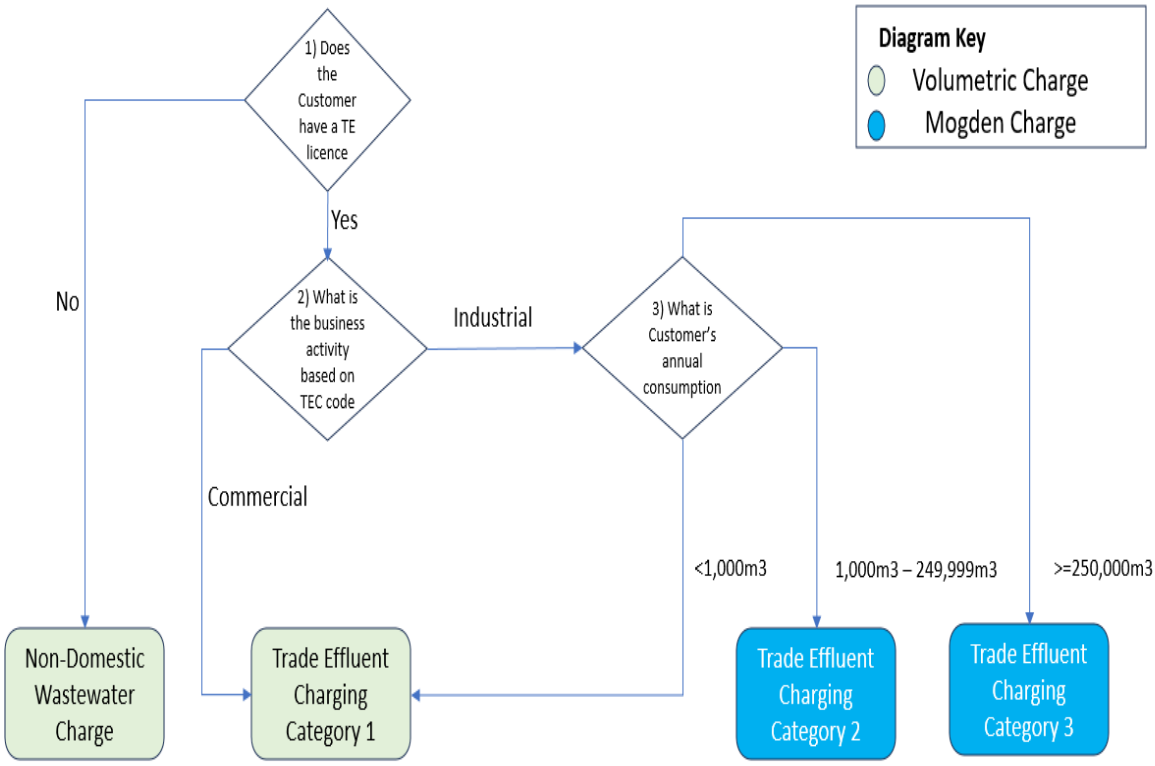
As evidenced through sampling and monitoring or consent history, business activities categorised as 'Industrial Activities' may present significant operational risk to the compliant

[11] A list of UÉ deemed Commercial or Industrial Activities is available in Appendix 3.

operation of the network and/or treatment plant receiving the discharge. The operational risk could be in terms of the biological or chemical profile of the discharge, the rate of discharge, and/or the volume presented. Trade effluent customers carrying out Industrial Activities will be subject to a high frequency sampling programme based on the nature and characterisation of wastewater discharged and the risk, or potential risk, it poses to UÉ's wastewater assets. Industrial Activities typically are manufacturing, processing, waste management or transport facilities (for a full list see Appendix 3, table A.3.3), for example, food and drink manufacturing, pharmaceutical manufacturing, and waste facilities such as Landfills or waste transfer stations[12].

Figure 3.1 illustrates UÉ's approach to categorising trade effluent customers based upon a combination of their primary activity and annual consumption.

Figure 3.1 Trade Effluent Customer Classes – approach to customer categorisation



3.3 How the costs of providing water and wastewater (including trade effluent) services are allocated to each customer class

See section 2.3 and appendix 1 for a description of how the costs of providing water and wastewater (including trade effluent) services will be allocated to customer classes.

[12] Waste transfer station means a facility used primarily to treat, store, recycle or recover different types of waste.

3.4 How trade effluent tariffs will be structured

The trade effluent tariffs will be structured in the following way:

- Application of tariffs to trade effluent customers on a per connection basis;
- Application of a national domestic allowance[13] of 213m^3 per annum for mixed-use[14] connections;
- Application of a multipart-part metered tariff, with a fixed (standing charge), fixed (compliance and licencing charge) and variable (volumetric charge) component, for all metered connections; and
- Application of a two-part unmetered tariff, with a fixed (compliance and licencing charge) and flat charge to all unmetered connections (unmetered Band 1 and 2).

Table 3.2 sets out the proportional split to be recovered from the standing, compliance and licence and volumetric charge components for trade effluent services. This table results from the application of the CRU's Decision to the recovery of functional costs through the standing charge, compliance and licencing charge and the variable charge.

Table 3.2 Proportional split between fixed and variable charges – Trade Effluent

Trade Effluent - % revenues recovered from charges			
Customer Class	**Standing Charge**	**Compliance & Licensing Charge**	**Variable Charge**
Trade effluent Overall	3.1%	4.5%	92.4%
Category 1	5.5%	11.6%	82.9%
Category 2	2.8%	4.8%	92.4%
Category 3	1.9%	0.3%	97.8%

3.5 Trade Effluent tariff implementation, rules, and processes

The trade effluent tariff rates (and resulting estimated customer bill impact analysis) set out in this paper are indicative and will not be applied to customer's bills. The CRU will hold a further consultation in 2025 on enduring trade effluent tariffs, reflecting the trade effluent tariff charging arrangement decisions as well as up to date allowable revenue and updated

[13] The domestic allowance represents the portion (volume in m^3) of water used or wastewater collected for domestic purposes in a mixed-use premises.
[14] Connections providing water services for both non-domestic and domestic purposes at a premises are termed 'mixed-use'.

customer input data, that will apply to customers' bills from 1st October 2026. A grace period[15] will apply to all trade effluent customers to assist them to plan and budget for the final tariffs.

The new trade effluent charging arrangements, when implemented, will represent a significant change to the existing tariffing design and structure for some trade effluent customers and may result in customers facing bill increases through the application of the new regime. UÉ wishes to ensure measures are taken to help customers mitigate future bill increases and may consider proposing arrangements which will allow some trade effluent connections to gradually transition from their existing tariff to their new tariff over time. A further CRU consultation will address what transitional arrangements may be needed, how they would work for trade effluent customers, and how they would align with bill capping arrangements in place under the Non-Domestic Tariff Framework if required.

UÉ may also propose additional tariff application rules to support implementation of the new trade effluent charging arrangements as part of a further phase of consultation.

3.5.1 Trade effluent legacy charging arrangements process

There may be a small number of trade effluent legacy arrangements. These legacy arrangements may include historical agreements or contracts entered into by a customer with a LA, which may include legally binding bespoke provisions relating to the provision of trade effluent services. For the avoidance of doubt, such charging arrangements will not include references to charges in licences issued under legislation in relation to the discharge of trade effluent (any reference to charges in such licences being superseded and replaced by the new charging regime set out in this paper and by future CRU decisions).

UÉ has a process in place to deal with customers who claim to have an existing agreement or contract for the provision of water and wastewater services. This fair and transparent process allows UÉ to make a determination as to whether it is legally bound to honour an individual agreement or contract and ultimately communicate this to customers. This process will be extended to include trade effluent customers in advance of the implementation of the new charging arrangements on 1st October 2026.

3.5.2 Water in and wastewater out

In normal circumstances the volume of water supplied to a premises is deemed equal to the volume of wastewater removed from a premises. However, legislation provides for UÉ and the customer to agree that the amount of wastewater removed is different to the amount of water supplied[16]. A standardised 'Water In / Water Out or WIWO' application

[15] The grace period refers to the period of time between the CRU's decision on final trade effluent tariff rates and 1st October 2026 when new harmonised trade effluent charging arrangements will be implemented.

[16] Section 22(9) of the Water Services (No. 2) Act 2013 provides that "For the purposes of calculating a charge…the amount of waste water discharged from a premises is deemed to be equal to the amount of water supplied to that premises, unless UÉ and the customer agree otherwise".

process for non-domestic customers is now in place and it can be reviewed on UÉ's website[17].

The current process excludes UÉ from entering into a WIWO agreement with a TE customer who has a trade effluent discharge authorisation until harmonised trade effluent charging arrangements are implemented.

From 1st October 2026, the process will be updated to allow UÉ to enter into a WIWO agreement with trade effluent customers as harmonised trade effluent charging arrangements will apply from this date.

[17] Details on the application process, including an application form, are available here

4. Tariffs reflecting the CRU's Decision

This section sets out the tariffs that reflect the CRU's Decision on tariff design which has slightly increased the non-domestic cost allocation from 23.73% to 23.99% when compared to UÉ's proposals.

The principal amendments which result in a higher non-domestic cost allocation are detailed in the CRU paper and summarised below:

i. UÉ's proposal assigned a 15% treatment plant adjustment to wastewater treatment and disposal opex and capex costs allocated by Population Equivalent (PE[18]) to apply to trade effluent customers carrying out Industrial Activities only. The CRU's Decision rejected this proposal.
ii. UÉ proposal increased the network location adjustment assigned to wastewater opex and capex collection costs and applied to Band 4 customers from 10% to 20%. The CRU's Decision rejected this proposal.

These amendments slightly lower the wastewater cost allocation (from 5.96% to 5.92%) and increase the trade effluent cost allocation (from 4.92% to 5.22%). The water supply allocation remains unchanged (from UÉ's proposals) in the CRU's Decision.

The CRU also made changes to UÉ's proposals to cap bill increases to water and wastewater connections on 1st October 2024. The CRU's Decision is to fully unwind bill capping arrangements and transition all water and wastewater connections to cost reflective tariffs by 1st October 2026.

Section 4.1 sets out the water and wastewater tariffs that will apply to UÉ's non-domestic customers for the 2024/2025 tariff year. Section 4.2 sets out indicative trade effluent tariffs which are included here to help trade effluent customers understand how they may be impacted once enduring trade effluent charging arrangements go-live on 1st October 2026.

4.1 UÉ's new non-domestic water and wastewater tariff rates - to apply from 1st October 2024

Tables 4.1 and 4.2 set out the water and wastewater tariff rates that will apply on 1st October 2024 and compares them to the tariff rates that will apply until 30th September 2024.

[18] PE is a measure of the pollutant load or strength of wastewater.

Table 4.1 Water supply 2024/2025 tariff year rates

Tariff Element	Customer Class	Wastewater supply tariffs comparison		
		Current	2024/2025	Difference €
Standing charge (p.a.)	Band 1 (<1,000m^3)	€43.76	€83.02	€39.26
	Band 2 (1,000 – 19,999m^3)	€113.31	€218.11	€104.80
	Band 3 (20,000 – 249,999m^3)	€1,872.98	€3,708.61	€1,835
	Band 4 (250,000m^3 – 2,299,999 m^3)	€21,771.46	€41,332.17	€19,560.71
	Band 5 (=/>2,300,000 m^3)		€295,967.72	
Volumetric charge (€/m^3)	Band 1 (<1,000m^3)	€1.87	€2.19	€0.32
	Band 2 (1,000 – 19,999m^3)	€1.30	€1.68	€0.38
	Band 3 (20,000 – 249,999m^3)	€1.21	€1.56	€0.35
	Band 4 (250,000m^3 – 2,299,999 m^3)	€1.05	€1.38	€0.33
	Band 5 (=/>2,300,000 m^3)		€1.27	
Flat charge (p.a.)	Unmetered Band 1	€260.35	€285.42	€25.07
	Unmetered Band 2	€1,412.31	€1,805.85	€392.54

Table 4.2 Wastewater services 2024/2025 tariff year rates

Tariff Element	Customer Class	Wastewater supply tariffs comparison		
		Current	2024/2025	Difference €
Standing charge (p.a.)	Band 1 (<1,000m^3)	€44.81	€75.43	€30.62
	Band 2 (1,000 – 19,999m^3)	€135.79	€238.34	€102.55
	Band 3 (20,000 – 249,999m^3)	€1,969.50	€3,849.75	€1,880.25
	Band 4 (250,000m^3 – 2,299,999 m^3)	€25,266.78	€38,652.54	€13,385.76
Volumetric charge (€/m^3)	Band 1 (<1,000m^3)	€1.92	€2.34	€0.42
	Band 2 (1,000 – 19,999m^3)	€1.82	€2.28	€0.46
	Band 3 (20,000 – 249,999m^3)	€1.81	€2.23	€0.42
	Band 4 (250,000m^3 – 2,299,999 m^3)	€1.75	€2.19	€0.44
Flat charge (p.a.)	Unmetered Band 1	€243.14	€307.61	€64.47
	Unmetered Band 2	€1,955.79	€2,347.47	€391.68

Some of the factors contributing to the change in tariff levels are summarised below:

i. Summary impact of moving to UÉ's 2024 allowed revenues

Tariffs are updated for the 2024/2025 tariff year to reflect UÉ's allowed revenues for 2024. The existing tariffs reflect UÉ's allowed revenues for 2019. UÉ's 2024 allowed revenue amount of €1,474m (in 2024 prices) represents an increase of €371m (or 34%) in nominal terms. Operational expenditure and capital investment has increased over the period, reflecting high inflation, economic growth needs, and investment to address urgent compliance requirements. This impact is the key factor driving the increase in tariff levels.

ii. Summary impact of moving to 2021 cost driver data

Current tariffs were calculated using 2017 cost driver data (i.e., domestic, and non-domestic volumes and connections). Tariffs to apply from 1st October 2024 were calculated using more recent 2021 customer volume and connection data. The calculation of 2024/2025 tariffs also reflect the introduction of PE as a third cost driver. PE is a better indicator of the strength of wastewater discharged by domestic, non-domestic and trade effluent customer groups than relative share of wastewater volumes. The inclusion of PE as a cost driver enables a tariff

structure more aligned with the Polluter Pays Principle (PPP[19]); customers discharging higher strength wastewater should pay higher wastewater treatment charges.

iii. Summary impact of removing Perverse Incentives inherent in the tariff design

At certain tariff boundaries of the existing non-domestic tariff classes, there are 'perverse incentives' to consume inefficiently for a very small number of customers who are close to these tariff boundaries.

Within the new tariffs UÉ has reduced the number of tariff boundaries where it occurs and also the magnitude of the perverse incentive. This has been achieved by changes to the tariff structure and, specifically, a rebalancing of cost recovery between standing and volumetric charging components.

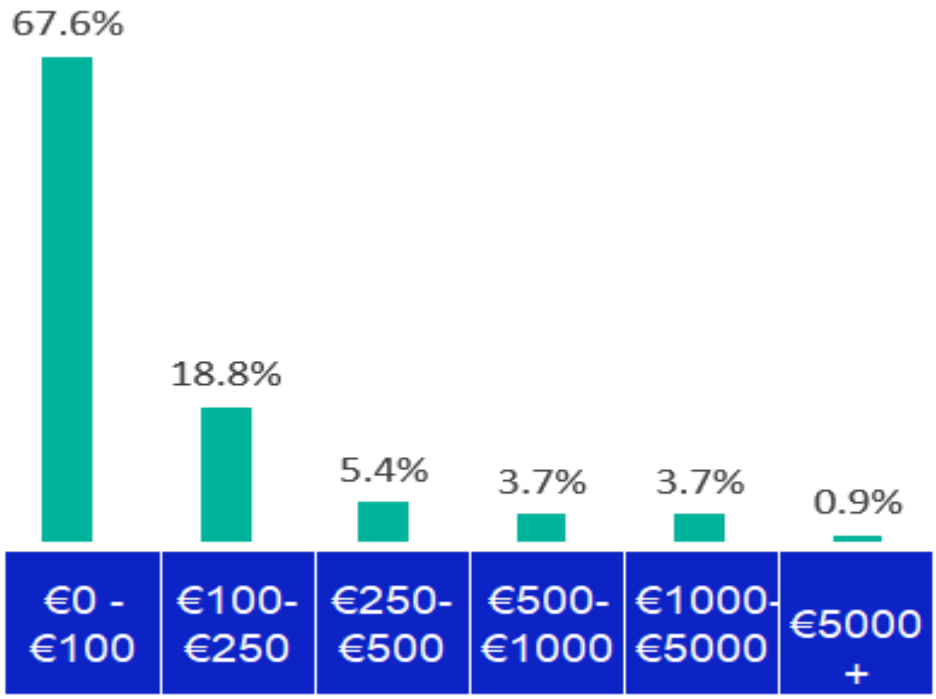
Currently 8% of water supply costs and 6% of wastewater costs are recovered via the standing charge, this will rise to 11% and 9% respectively from 1st October 2024. The change is most pronounced for Band 1 connections; currently 19% of water supply costs and 17% of wastewater costs are recovered via the standing charge, this will rise to 28% and 26% respectively from 1st October 2024. The effect is to exacerbate the standing charge increases with a lower level of increase applicable to volumetric charges.

4.1.1 Summary of the Impact on Customers' Bills

The new water and wastewater tariffs will result in bill increases for all customers from 1st October 2024. Figure 4.1 demonstrates the overall impact of how the move to 2024/2025 tariffs will affect connections with the CRU's Decision on bill capping arrangements applied.

[19] The PPP is a principle of EU Environmental Law, and it requires that polluters should bear the costs of their pollution including the cost of measures taken to prevent, control and remedy pollution and the costs it imposes on society. See here for EurEau's view on how the PPP should apply to water services including wastewater treatment costs.

Figure 4.1 – Impact of 2024/2025 tariffs on non-domestic water and wastewater customers



The above impact summary shows that, while the application of 2024/2025 tariff rates to water and wastewater metered and unmetered connections will result in average annual bill increases of c. 34%, the majority of connections (86%) will see an annual bill increase of less than €250.

4.2 Indicative Trade Effluent Tariffs

Tables 4.3 to 4.7 sets out indicative trade effluent tariffs that are based on UÉ's 2024 allowed revenues, 2021 cost driver data (volumes, connections, and PE) and the CRU's Decision on the trade effluent tariff design. These tariff rates will not be applied to trade effluent connections' bills and will change as a result of updates to reflect:

i. UÉ's allowed revenues for the prevailing tariff year;
ii. Updated cost allocation analysis using up to date cost driver data (volumes, connections, and PE); and
iii. Any transitional arrangements to be applied for trade effluent customers.

The CRU will consult in the future on the enduring trade effluent tariff rates that will be applied to trade effluent connections' bills from 1st October 2026.

The CRU's Decision provides that metered trade effluent connections will pay a Standing Charge, a Compliance and Licensing Charge as well as a volumetric charge either based on the Non-Domestic Framework wastewater volumetric charges or the Mogden formula, depending on the trade effluent tariff category. Unmetered trade effluent connections will pay two fixed

charges per year (a single fixed Unmetered Charge and the Trade Effluent Category 1 Compliance and Licensing charge).

Table 4.3 Metered Trade Effluent Category 1 indicative rates

Trade Effluent Category	Wastewater Customer Class	Standing charge (p.a.)	Volumetric charge (€/m^3)	Compliance & Licensing charge
Trade Effluent Category 1	Band 1 (<1,000m^3)	€75.43	€2.34	€326.29
Trade Effluent Category 1	Band 2 (1,000 – 19,999m^3)	€238.34	€2.28	€326.29
Trade Effluent Category 1	Band 3 (20,000 – 249,999m^3)	€3,849.75	€2.23	€326.29
Trade Effluent Category 1	Band 4 (>=250,000m^3)	€38,652.54	€2.19	€326.29

Table 4.4 Unmetered Trade Effluent Category 1 indicative rates

Trade Effluent Category	Wastewater Customer Class	Flat charge (p.a.)	Compliance & Licensing charge
Trade Effluent Category 1	Unmetered Band 1	€307.61	€326.29
Trade Effluent Category 1	Unmetered Band 2	€2,347.47	€326.29

Table 4.5 Trade Effluent Category 2 and 3 indicative standing charges and compliance and licensing charges

Trade Effluent Category	Wastewater Customer Class	Standing charge (p.a.)	Compliance & Licensing charge
Trade Effluent Category 2	Band 2 (1,000 – 19,999m^3)	€238.34	€2,661.47
	Band 3 (20,000 – 249,999m^3)	€3,849.75	€2,661.47
Trade Effluent Category 3	Band 4 (>=250,000m^3)	€38,652.54	€7,215.55

Table 4.6 Trade Effluent Category 2 and 3 indicative Mogden formula charge per cubic metre

Trade Effluent Customer Class	R (€/m^3)	V (€/m^3)	B (€/m^3)	S (€/m^3)	Total
Trade Effluent Category 2 (1,000 – 249,999m^3)	€0.58	€0.93	€0.49	€0.41	€2.41
Trade Effluent Category 3 (>=250,000m^3)	€0.54	€0.93	€0.49	€0.41	€2.37

Table 4.7 Mogden formula average pollutant values

Pollution parameter	National average[20]
Os (National average of COD)	**482**mg/l
Ss (National average of suspended solids)	**252**mg/l

4.2.1 Summary of the indicative Impact on Customer Bills

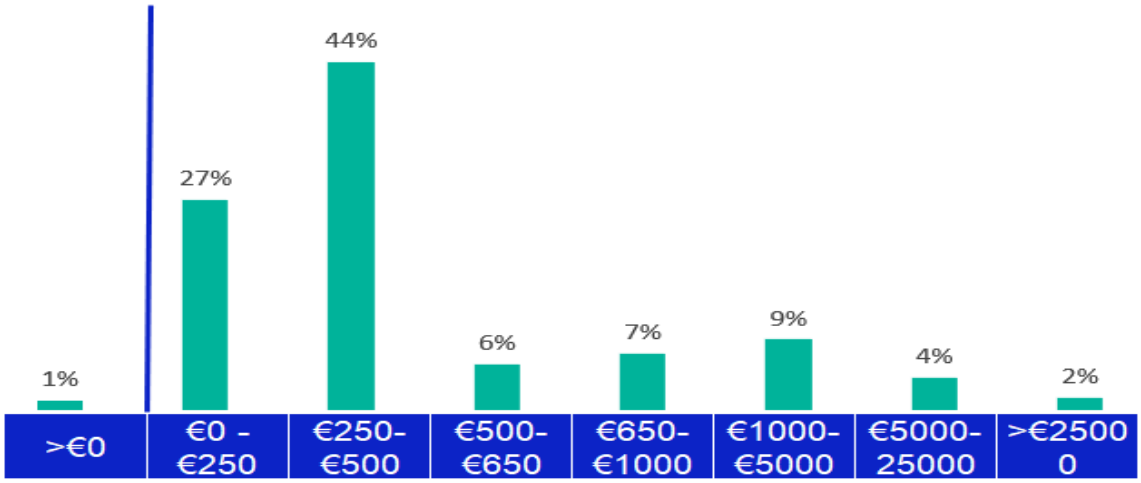
UÉ has assessed the impact the CRU's Decision is expected to have on existing trade effluent customers' annual bills. Figure 4.2 demonstrates the overall indicative impact of moving to the CRU's Decision on trade effluent charging arrangements before any transitional arrangements to support customers have been applied. The analysis indicates that while most

[20] Calculated by UÉ reflecting national average of COD and suspended solids across the network over a rolling three-year period from 2020 to 2022.

trade effluent connections will face an increase, c.72% of connections are expected to see an increase of less than €500 per annum as a result of moving to the new tariffs. As set out in section 4.1, the introduction of PE as a cost driver and the direct allocation of trade effluent compliance, monitoring and sampling costs is placing upward pressure on trade effluent tariff levels, particularly for those connections in Trade Effluent Category 2 and Trade Effluent Category 3.

UÉ is aware of the significant increases in trade effluent bills. To help mitigate the impact of tariffs, UÉ will propose transitional arrangements for trade effluent connections based on enduring tariffs that will apply from 1st October 2026. A further CRU consultation phase will address what transitional arrangements may be needed, how they would work for trade effluent customers, and how they would align with bill capping arrangements already in place under the Non-Domestic Tariff Framework.

Figure 4.2 – Indicative trade effluent bill impact



4.2.2 Factors which may influence 'indicative' bill change

In this section UÉ considers the factors that are changing as a result of the CRU's Decision, and which will drive changes in trade effluent customer bills. The interaction of all factors will determine how a trade effluent customer's total bill will change.

i. Reflecting up to date Revenue Allowance:

The indicative trade effluent tariff rates reflect up to date 2024 allowed revenue. Each of the trade effluent fixed and variable indicative charges have increased as a result which means that the vast majority of trade effluent tariff connections are expected to see bill increases.

ii. Changes in charging structure

The change involved in moving from a trade effluent customer's current to enduring trade effluent charging structure is a key factor in determining how bills will be impacted. The level of change varies depending on each trade effluent customer's current charging structure:

- Trade effluent customers currently charged Framework rates:

Most trade effluent customers are currently, and will continue[21] to be, charged Framework wastewater volumetric and standing charge rates. These customers will be impacted by tariff level changes to reflect UÉ's updated allowed revenues and tariff design changes (as described in section 4.1). They will also be impacted by the introduction of the fixed Compliance and Licensing charge which will apply to all trade effluent customers and will replace the monitoring or FOG charges which currently apply to some trade effluent customers.

Some trade effluent customers currently charged Framework wastewater volumetric and standing charge rates will be assigned to Trade Effluent Category 2 or Trade Effluent Category 3 as part of enduring during trade effluent charging arrangements. The Framework standing charge, a Mogden formula charge, and the fixed Compliance and Licensing charge will apply to these trade effluent connections from 1st October 2026. These trade effluent connections will be charged based on 'volume and strength' for the first time through the Mogden formula, taking the level of pollutants in their effluent into account.

- Trade effluent customers currently charged through the Mogden formula

There are a small number of connections that are currently charged a Mogden charging structure. The indicative Trade Effluent Category 2 and Category 3 Mogden formula parameter charge values are higher than the existing Mogden charges as those values have not been amended in at least 10 years. The Framework standing charge and the fixed Compliance and Licensing charge will also apply to these trade effluent connections from 1st October 2026.

- Trade effluent customers currently charged a specific trade effluent charge

There are currently a small number of connections charged a specific trade effluent charge (as previously determined by their LA). The majority of the connections currently on a specific trade effluent charge will move to UÉ's proposed Trade Effluent Category 1 and thus be charged Framework wastewater volumetric and standing charge rates from 1st October 2026. The fixed Compliance and Licensing charge will also apply to these trade effluent connections.

Trade effluent customers who claim to have an existing agreement or contract in respect of a specific trade effluent charge can avail of UÉ's trade effluent legacy charging arrangements process in advance of 1st October 2026 (see section 3.5.1).

iii. Pollutant strength or concentration

Connections placed in Trade Effluent Categories 2 and 3 are likely to have pollutant strengths that are higher than the average of the network because of the nature of their business activity.

However, as the Mogden formula takes into account the level of treatment with the effluent discharged, customers will also be charged less if their wastewater is 'cleaner' than the

[21] The expectation is that the majority of trade effluent customers will be assigned to Trade Effluent Category 1

average (i.e., contains low levels of pollutants). Setting trade effluent charges that include components related to the strength of trade effluent discharge may encourage more trade effluent customers to invest in some degree of onsite effluent treatment. UÉ will also provide guidance for such customers wishing to develop onsite treatment to manage their trade effluent charges. This is one of the reasons why a small number of trade effluent connections may see bill decreases. In summary, the application of the Mogden charging structure may result in a bill increase for some customers and a bill decrease for other customers.

5. Customer Impact case studies

This section presents a range of case studies which have been developed to assist non-domestic customers to understand in more detail how tariff changes may impact a bill and is structured as follows:

- **section 5.1** details a series of water supply and wastewater services cases studies; and
- **section 5.2** details a series of trade effluent services cases studies.

5.1 Water and wastewater services case studies

A total of seven case studies have been developed to understand in more detail how the change in water and wastewater tariffs applicable from 1st October 2024 may impact a customer bill. A range of services, customer classes and transition/capping arrangements have been chosen to provide a representative customer impact. Figure 5.1 lists the case studies which are included in this section.

Table 5.1 List of Bill Impact Case Studies

Case Study	Annual Usage m^3	Services	Customer Class	In receipt of a DA	2021 – 2024 Transition Path	2024/2025 Cap Y/N
1	150	Water + Wastewater	Band 1	No	No	No
2	500	Water	Band 1	Yes	3 year	No
3	2,000	Water + Wastewater	Band 2	No	10% cap	75% cap
4	14,000	Water	Band 2	No	No	No
5	70,000	Water+ Wastewater	Band 3	No	10% cap	75% cap
6	300,000	Water	Band 4	No	3 year	No
7	Unmetered	Water + Wastewater	Band 1 (unmetered)	No	No	No

Each case study compares the current annual bill to the annual bill that will apply from 1st October 2024. If the 2024/2025 tariff year bill is at least €750 greater than the 2023/2024 tariff year bill the customer will be entitled to a 75% cap on the maximum annual increase.

The values of water and wastewater usage have been chosen to represent a broad range of customer types. The formulae below outline how a bill is calculated by UÉ. The water and wastewater components of a bill are calculated separately and are summed together for the total charge. Billable usage refers to total water and/or wastewater usage net of any domestic allowance.

$$\boldsymbol{Water\ Bill} = Standing\ Charge + (Volumetric\ unit\ rate\ x\ billable\ usage)$$

$$\boldsymbol{Wastewater\ Bill} = Standing\ Charge + (Volumetric\ unit\ rate\ x\ billable\ usage)$$

$$\boldsymbol{Total\ Bill} = Water\ Bill + Wastewater\ Bill$$

Notes:

- All standing and volumetric charges are rounded to the nearest two decimal places.
- The total water charge, total wastewater charge, total bill and overall bill change for each case study is calculated based on standing and volumetric charges rounded to the nearest two decimal places.
- The total water charge, total wastewater charge, total bill and overall bill change for each case study has been rounded to the nearest euro.
- In scenarios where a 10% cap on the maximum annual charge applies over the period prior to 1st October 2024, the 2023/2024 tariffs are lower than the enduring rates that would otherwise apply in that year.

Case study 1

Case Study	Annual Usage m^3	Services	Customer Class	In receipt of a DA	2021 - 2024 Transition	2024/2025 Cap
1	150	Water + Wastewater	Band 1	No	No	No

This case study outlines the impact of 2024/2025 tariffs on a customer who is connected to both the **water and wastewater** networks and who has recorded usage of 150m^3 per annum. As the usage is below 1,000m^3, the customer is classified into Band 1.

Table 5.2 shows the impact of moving to the new tariffs for this customer. As can be seen, the volumetric charges for water and wastewater are increasing. This leads to a higher volumetric charge overall. The standing charge is also increasing. The increase in this customer's bill is less than €750 and means that 2024/2025 tariffs will apply from 1st October 2024 i.e. there will be no cap on the maximum annual increase.

Table 5.2 – Case Study 1: Bill Impact

	2023/2024 Tariffs	2024/2025 Tariffs
Water		
Standing Charge Water	€43.76	€83.02
Volumetric Charge Water/m^3	€1.87	€2.19
Billable Usage m^3	150	150
Total Water Charge	€324	€412
Wastewater		
Standing Charge Wastewater	€44.81	€75.43
Volumetric Charge Wastewater/m^3	€1.92	€2.34
Billable Usage m^3	150	150
Total Wastewater Charge	€333	€426
Total Bill (water plus wastewater charge)	€657	€838
Overall Bill Change €		€181.00
Overall Bill Change %		27.55%

Case study 2

Case Study	Annual Usage m^3	Services	Customer Class	In receipt of a DA	2021 -2024 Transition	2024/2025 Cap
2	500	Water	Band 1	Yes	3 year	No

This case study outlines the impact of 2024/2025 tariffs on a customer who is connected to only the **water network** and has recorded usage of 500m^3 per annum. As the usage is below 1,000m^3, the customer is classified into **Band 1**. This customer has a domestic allowance of 213m^3 resulting in billable usage of 287m^3 in the 2024/2025 tariff year.

Table 5.3 shows the impact of moving to the new tariffs for this customer. As can be seen, the volumetric charges for water are increasing. This leads to a higher volumetric charge overall. The standing charge is also increasing. The increase in this customer's bill is less than €750 and means that 2024/2025 tariffs will apply from 1st October 2024 i.e. there will be no cap on the maximum annual increase.

Table 5.3 – Case Study: 2 Bill Impact

	2023/2024 Tariffs	2024/2025 Tariffs
Water		
Standing Charge Water	€43.76	€83.02
Volumetric Charge Water/m^3	€1.87	€2.19
Billable Usage m^3	287	287
Total Water Charge	€580	€712
Overall Bill Change €		€132.00
Overall Bill Change %		22.76%

Case study 3

Case Study	Annual Usage m^3	Services	Customer Class	In receipt of a DA	2021 -2024 Transition	2024/2025 Cap
3	2,000	Water + Wastewater	Band 2	No	10% Cap	75% Cap

This case study outlines the impact of 2024/2025 tariffs on a customer who is connected to both the **water and wastewater** networks and has recorded usage of **2,000m³** per annum. As the usage is between 1,000m³ and 20,000m³, the customer is classified into **Band 2**.

Table 5.4 shows the impact of moving to the new tariffs for this customer. All tariff components are increasing in this scenario resulting in a total bill increase. As the bill increase is greater than or equal to €750, the customer will be entitled to a 75% cap on the maximum annual increase allowed in the 2024/2025 tariff year. In this case study the annual bill increase is 75% or more as the customer is currently on a 10% cap and is not being charged the enduring tariffs applicable for the period up to 30th September 2024. Since the 1st October 2021 connections on a 10% cap have been transitioning to the enduring tariffs applicable for the period up to 30th September 2024 and have not reached the enduring tariff level.

Table 5.4 – Case Study 3: Bill Impact

	2023/2024 Tariffs		2024/2025 Tariffs
Water			
Standing Charge Water	€79.32		€218.11
Volumetric Charge Water/m³	€0.91		€1.68
Billable Usage m³	2,000	2,000	
Total Water Charge	€1,899		€3,578
Wastewater			
Standing Charge Wastewater	€95.05		€238.34
Volumetric Charge Wastewater/m³	€1.27		€2.28
Billable Usage m³	2,000	2,000	
Total Wastewater Charge	€2,635		€4,798
Total Bill (water plus wastewater charge)	**€4,534**		**€8,376**
Overall Bill Change €			€3,842
Overall Bill Change %			84.73%

A 75% cap on the maximum annual increase means that 2024/2025 tariffs will not be applied to this customer's bill. Table 5.5 demonstrates the customer's bill for the 2024/2025 tariff

year. It will rise by no more than 75% from the 2023/2024 tariff year. Non-domestic tariff levels will be reviewed again in advance of the 2025/2026 tariff year to reflect UÉ's up to date allowable revenues. Similar capping arrangements will apply to the 2025/2026 tariffs (i.e. if an increase is greater than or equal to €750, the customer will be entitled to a 75% cap on the maximum annual increase allowed in the 2025/2026 tariff year).

Table 5.5 – Case Study 3: 75% Cap on the maximum increase allowed in the 2024/2025 year

	2024/2025
Water	
Standing Charge Water	€148.72
Volumetric Charge Water/m^3	€1.61
Billable Usage	2,000
Total Water Charge	€3,377
Wastewater	
Standing Charge Wastewater	€166.70
Volumetric Charge Wastewater/m^3	€2.20
Billable Usage	2,000
Total Wastewater Charge	€4,558
Total charge	€7,935
Annual Change - €	€3,401

Case study 4

Case Study	Annual Usage m^3	Services	Customer Class	In receipt of a DA	2021-2024 Transition path	2024/2025 Tariff Year
4	14,000	Water	Band 2	No	No	No

This case study outlines the impact of the 2024/2025 tariffs on a customer connected to only the **water** network who has recorded usage of **14,000m³** per annum. As the usage is between 1,000m³ and 20,000m³, the customer is classified into **Band 2**.

Table 5.6 shows the impact of moving to the new tariffs for this customer. As can be seen, the volumetric charge for water is increasing. This leads to a higher volumetric charge. The standing charge is also increasing resulting in an overall bill increase. The increase in this customer's bill is greater than €750 and the customer can qualify for a 75% cap if eligible. However as the percentage bill increase is less than 75% a cap is not necessary, and the 2024/2025 enduring tariffs will apply from 1st October 2024.

Table 5.6 – Case Study 4: Bill Impact

	2023/2024 Tariffs		2024/2025 Tariffs
Water			
Standing Charge Water		€113.31	€218.11
Volumetric Charge Water/m³		€1.30	€1.68
Billable Usage m³	14,000	14,000	
Total Water Charge		€18,313	€23,738
Overall Bill Change €			€5,425
Overall Bill Change %			29.62%

Case study 5

Case Study	Annual Usage m^3	Services	Customer Class	In receipt of a DA	2021-2024 Transition Path	2024/2025 Tariff Year
5	70,000	Water + wastewater	Band 3	No	10% cap	75% Cap

This case study outlines the impact of the final tariffs on a customer who is connected to both the **water and wastewater** networks and has recorded usage of **70,000m^3** per annum. As the usage is between 20,000m^3 and 250,000m^3, the customer will be classified into **Band 3**.

Table 5.7 shows the impact of moving to the new tariffs for this customer. As can be seen, the volumetric charge and standing charges for water and wastewater are increasing resulting in a total bill increase. As the bill increase is greater than €750, and the annual increase from 2023/2024 to 2024/2025 tariff year is 75% or more, the customer will be entitled to a 75% cap. In this case study the annual bill increase is 75% or more as the customer is currently on a 10% cap and is not charged the enduring tariffs applicable for the period up to 30th September 2024. Since the 1st October 2021 connections on a 10% cap have been transitioning to the enduring tariffs applicable for the period up to 30th September 2024 and have not reached the enduring tariff level.

Table 5.7 – Case Study 5: Bill Impact

	2023/2024 Tariffs		2024/2025 Tariffs
Water			
Standing Charge Water		€1,311.09	€3,708.61
Volumetric Charge Water/m^3		€0.85	€1.56
Billable Usage m^3	70,000		70,000
Total Water Charge		€60,811	€112,909
Wastewater			
Standing Charge Wastewater		€1,378.65	€3,849.75
Volumetric Charge Wastewater/m^3		€1.27	€2.23
Billable Usage m^3	70,000		70,000
Total Wastewater Charge		€90,279	€159,950
Total Bill (water plus wastewater charge)		**€151,090**	**€272,859**
Overall Bill Change €			€121,769
Overall Bill Change %			80.59%

A cap on the maximum increase means that this customer's bill will not reach the 2024/2025 tariffs. Table 5.8 demonstrates the customer's bill for the 2024/2025 tariff year. A 75% cap means that this customer's bill will rise by no more than 75% in the 2024/2025 tariff year. Non-domestic tariff levels will be reviewed again in advance of the 2025/2026 tariff year to reflect UÉ's up to date allowable revenues. Similar capping arrangements will apply to the

2025/2026 tariffs (i.e. if an increase is greater than or equal to €750, the customer will be entitled to a 75% cap on the maximum annual increase allowed in the 2025/2026 tariff year).

Table 5.8 – Case Study 5: 75% Cap on the maximum increase allowed in the 2024/2025 year

	2024/2025
Water	
Standing Charge Water	€2,509.85
Volumetric Charge Water/m³	€1.52
Billable Usage	70,000
Total Water Charge	€109086
Wastewater	
Standing Charge Wastewater	€2,614.2
Volumetric Charge Wastewater/m³	€2.18
Billable Usage	70,000
Total Water Charge	€155,320
Total Charge	€264,407
Annual Change - €	€113,317

Case study 6

Case Study	Annual Usage m^3	Services	Customer Class	In receipt of a DA	2021 – 2024 Transition Path	2024/2025 Tariff Year
6	300,000	Water	Band 4	No	3 Year Transition	No

This case study outlines the impact of the final tariffs on a customer located who is connected to only the **water** network and has recorded usage of **300,000m^3** per annum. As the usage falls between 250,000m^3 and 2,299,999m^3, the customer will be classified into **Band 4**.

Table 5.9 below demonstrates the impact of moving to the new tariffs for this customer. Both the standing charge and volumetric charges are increasing resulting in an overall bill increase. The increase in this customer's bill is greater than €750 and the customer can qualify for a 75% cap if eligible. However, as the percentage bill increase is less than 75% a cap is not necessary, meaning that the 2024/2025 enduring tariffs will apply from 1st October 2024.

Table 5.9 – Case Study 6: Bill Impact

	2023/2024 Tariffs		2024/2025 Tariffs
Water			
Standing Charge Water	€21,771.46		€41,332.17
Volumetric charge Water/m^3	€1.05		€1.38
Billable Usage m^3	300,000	300,000	
Total Water Charge	€336,771		€455,332
Overall Bill Change €			€118,561
Overall Bill Change %			35.21%

Case study 7

Case Study	Annual Usage m^3	Services	Customer Class	In receipt of a DA	2021 – 2025 Transition Path	2024/2025 Tariff Year
7	Unmetered	Water + Wastewater	Band 1 unmetered	No	No	No Cap

This case study outlines the impact of the 2024/2025 tariffs on a customer who is connected to both the **water and wastewater** networks and is an unmetered Band 1 customer.

Table 5.10 shows the impact of moving to the new tariffs for this customer. As can be seen, the unmetered charge is increasing. The increase in this customer's bill is less than €750 and means that the 2024/2025 enduring tariffs will apply from 1st October 2024 i.e. there will be no cap on the maximum annual increase.

Table 5.10 – Case Study 7: Bill Impact

	Current Tariffs	Final Tariffs
Water + Wastewater		
Flat unmetered charge	€503.49	€593.03
Annual Bill Change €		€89.54
Annual Bill Change %		17.78%

5.2 Trade effluent services case studies

Given the wide range of existing tariffs, structures, and rules for trade effluent charges, moving to harmonised and national trade effluent tariff arrangements is likely to result in tariff changes for most customers. The impact on trade effluent customers will vary individually and depend on the strength and volume of wastewater discharged. This section highlights indicative trade effluent bills based on notional trade effluent strength and volume for a range of different trade effluent customers.

Table 5.11 identifies seven example case studies, which are further explored in this section with a view to providing an indication of customer bill impacts. It should be noted that the case studies in this section show the impact of applying the indicative tariffs to trade effluent customers, and thus excludes application of any transitional arrangements. UÉ will submit proposals on transitional arrangements for trade effluent customers as part of a further CRU consultation on enduring tariffs. In that further consultation, UÉ will update each case study to demonstrate the impact of moving from current tariffs to the enduring trade effluent tariffs including any proposed transitional arrangements.

Table 5.11 List of indicative trade effluent billing case studies

Case study	Trade Effluent Category	Activity	Trade Effluent discharge (m^3)	Trade Effluent samples (Strength)	Basis of variable charge[22]
1	Category 1	Commercial	800	N/A[23]	Volumetric
2	Category 1	Commercial	2,050	N/A	Volumetric
3	Category 1	Industrial	400	N/A	Volumetric
4	Category 2	Industrial	5,000	COD=3000 SS=800	Mogden
5	Category 2	Industrial	7,000	COD=800 SS=100	Mogden
6	Category 3	Industrial	300,000	COD=100 SS=25	Mogden
7	Category 3	Industrial	1,100,000	COD= 800 SS=200	Mogden

The wastewater usage values, and sample values have been chosen to represent a broad range of trade effluent customer types. Appendix 3 provides a list of the activities which fall into Commercial Activities and Industrial Activities.

The formulae below outline how a trade effluent bill will be calculated. The wastewater components of a bill are calculated separately and are summed together for the total trade effluent charge. Billable usage refers to total wastewater usage net of any domestic allowance. See section 5.1 above to review case studies demonstrating water supply bill component impacts.

[22] The table distinguishes whether a trade effluent customer's variable component of the charge is a volumetric charge (Trade Effluent Category 1) or a Mogden formula charge (Trade Effluent Category 2 and 3).
[23] UÉ will sample a representative cross section of Trade Effluent Category 1 customers across a geographical range of Commercial Activities and Industrial Activities and consumption values, in order to better understand the profile of wastewater strength discharged.

$$\textbf{\textit{Trade Effluent Category 1 Bill}} = Standing\ Charge +$$

$$(Volumetric\ unit\ rate\ x\ billable\ usage) +$$

$$trade\ effluent\ compliance\ and\ licensing\ fixed\ charge$$

$$\textbf{\textit{Trade Effluent Category 2 and 3 Bill}} = Standing\ Charge +$$

$$Mogden\ formula\ charge$$ *+ trade effluent compliance and licensing fixed charge*

Notes:

- All standing, volumetric, Mogden formula components and trade effluent compliance and licensing fixed charges are rounded to the nearest two decimal places for the purpose of the case studies. In practice tariff components reflecting a cap are rounded to seven decimal places.
- The total annual trade effluent charge for each case study has been rounded to the nearest euro.
- In case studies where a Mogden formula applies, it is populated with the national average wastewater strengths values: the Os parameter value of 482mg/l and the Ss parameter value of 252mg/l apply.

Trade effluent case study 1 - Commercial

Case study	Trade Effluent category	Activity	Trade effluent discharged (m3)	Trade Effluent samples (Strength)	Basis of variable charge:
1	Category 1	Commercial	800	N/A	Volumetric

This case study outlines how the indicative trade effluent tariffs would apply to a restaurant with a trade effluent discharge of 800m^3 per annum connected to the **wastewater** network. For Trade Effluent Category 1 customers, UÉ will charge a trade effluent compliance and licensing charge and both a standing charge and a volumetric rate differentiated by customer class consistent with the approach taken for sanitary wastewater discharged by non-domestic customers. As the customers annual consumption is below 1,000m^3, they will be charged the Band 1 wastewater standing charge and volumetric rate for their discharge volumes.

Table 5.12 shows the indicative annual bill if this trade effluent customer immediately moves to the enduring tariffs following the implementation of harmonised trade effluent charging arrangements.

Table 5.12 Case study 1: Worked example of indicative trade effluent bill calculation

		Indicative Annual Bill
Trade effluent tariff components		
Standing Charge Wastewater	(i)	€75.43
Compliance & Licensing charge	(ii)	€326.29
Volumetric Charge Wastewater/m^3		€2.34
(Billable trade effluent volume m^3)		800
Volumetric Charge	(iii)	€2.34 x 800 = €1,872
Total annual trade effluent charge	**(i+ii+iii)**	€2,274

Trade effluent case study 2 - Commercial

Case study	Trade Effluent Category	Activity	Trade Effluent discharged (m^3)	Trade Effluent samples (Strength)	Basis of variable charge
2	Category 1	Commercial	2,050	N/A	Volumetric

This case study outlines the indicative impact of enduring trade effluent tariffs on a swimming pool connected to the **wastewater** network and who has a trade effluent discharge of 2,050m^3 per annum. For Trade Effluent Category 1 customers, UÉ will charge a trade effluent compliance and licensing charge and both a standing charge and a volumetric rate differentiated by customer class consistent with the approach taken for sanitary wastewater discharged by non-domestic customers. As the customers annual consumption is between 1,000m^3 and 19,999m^3, they will be charged the Band 2 wastewater standing charge and volumetric rate for their discharge volumes.

Table 5.13 shows the indicative annual bill if this trade effluent customer immediately moves to the enduring tariffs following the implementation of harmonised trade effluent charging arrangements.

Table 5.13 Worked example of trade effluent bill calculation

		Indicative Annual Bill
Trade effluent tariff components		
Standing Charge Wastewater	(i)	€238.34
Compliance & Licensing charge	(ii)	€326.29
Volumetric Charge Wastewater/m^3		€2.28
(Billable trade effluent volume m^3)		2,050
Volumetric Charge	(iii)	€2.28 x 2,050 =€4,674
Total annual trade effluent charge	**(i+ii+iii)**	€5,239

Trade effluent case study 3 – Industrial

Case Study	Trade Effluent Category	Activity	Trade Effluent discharged (m^3)	Trade Effluent samples (Strength)	Basis of variable charge
3	Category 1	Industrial	400	N/A	Volumetric

This case study outlines the indicative impact of enduring trade effluent tariffs on a microbrewery connected to the **wastewater** network and who has a trade effluent discharge of 400m^3 per annum. For Trade Effluent Category 1 customers, UÉ will charge a trade effluent compliance and licensing charge and both a standing charge and a volumetric rate differentiated by customer class consistent with the approach taken for sanitary wastewater discharged by non-domestic customers. As the customers annual consumption is below 1,000m^3, they will be charged the Band 1 wastewater standing charge and volumetric rate for their discharge volumes.

Table 5.14 shows the indicative annual bill if this trade effluent customer immediately moves to the enduring tariffs following the implementation of harmonised trade effluent charging arrangements.

Table 5.14 Worked example of trade effluent bill calculation

		Indicative Annual Bill
Trade effluent tariff components		
Standing Charge Wastewater	(i)	€75.43
Compliance & Licensing charge	(ii)	€326.29
Volumetric Charge Wastewater/m^3		€2.34
(Billable trade effluent volume m^3)		400
Volumetric Charge	(iii)	€2.34 x 400 = €936
Total annual trade effluent charge	**(i+ii+iii)**	€1,338

Trade effluent case study 4 – Industrial

Case Study	Trade Effluent category	Activity	Trade effluent discharged (m3)	Trade Effluent samples (Strength)	Basis of variable charge:
4	Category 2	Industrial	5,000	COD=3000 SS=800	Mogden formula

This case study outlines the indicative impact of enduring trade effluent tariffs on a Food Processing Industrial Activity connected to the **wastewater** network and who has a trade effluent discharge of 5,000m^3 per annum. For Trade Effluent Category 2 customers, UÉ will charge a trade effluent compliance and licensing charge, a standing charge differentiated by customer class consistent with the approach taken for sanitary wastewater discharged by non-domestic customers and a Mogden formula charge. As the customers annual consumption is between 1,000m^3 and 20,000m^3, they will be charged the Band 2 wastewater standing charge.

Table 5.15 shows the indicative annual bill if this trade effluent customer immediately moves to the enduring tariffs following the implementation of harmonised trade effluent charging arrangements.

Table 5.15 Worked example of trade effluent bill calculation

		Indicative Annual Bill
Trade effluent tariff components		
Standing Charge Wastewater	i	€238.34
Compliance & Licensing charge	ii	€2,661.47
R (Reception and Conveyance charge (per unit)) V (Volume charge (per unit)) B (Biological charge (per unit)) S (Sludge charge (per unit)) Ot (Customer COD (mg/l)) St (Customer SS (mg/l))		€0.58 €0.93 €0.49 €0.41 **3,000** **800**
C= R + V + B(Ot/Os) + S(St/Ss)		
C is the resultant trade effluent charge in € /m^3:	iii	€5.86
Billable trade effluent volume (m^3)	iv	5,000
Mogden Charge €	v	(iii x iv) = €29,300
Total trade effluent charge €		(i+ii+v) = €32,200

Trade effluent case Study 5 – Industrial

Case study	Trade Effluent Category	Activity	Trade Effluent discharged (m^3)	Trade Effluent samples (Strength)	Basis of variable charge
5	Category 2	Industrial	70,000	COD=800 SS=100	Mogden

This case study outlines the indicative impact of enduring trade effluent tariffs on a Biopharma Industrial Activity connected to the **wastewater** network and who has recorded trade effluent discharge of 70,000m^3 per annum. For Trade Effluent Category 2 customers, UÉ will charge a trade effluent compliance and licensing charge, a standing charge differentiated by customer class consistent with the approach taken for sanitary wastewater discharged by non-domestic customers and a Mogden formula charge. As the customers annual consumption is between 1,000m^3 and 20,000m^3, they will be charged the Band 2 wastewater standing charge.

Table 5.16 shows the indicative annual bill if this trade effluent customer immediately moves to the enduring tariffs following the implementation of harmonised trade effluent charging arrangements.

Table 5.16 Worked example of trade effluent bill calculation

		Indicative 2024/25 Tariffs
Trade effluent tariff components		
Standing Charge Wastewater	i	€3,849.75
Compliance & Licensing charge	ii	€2,661.47
R (Reception and Conveyance charge (per unit))		€0.58
V (Volume charge (per unit))		€0.93
B (Biological charge (per unit))		€0.49
S (Sludge charge (per unit))		€0.41
Ot (Customer COD (mg/l))		800
St (Customer SS (mg/l))		100
C= R + V + B(Ot/Os) + S(St/Ss)		
C is the resultant trade effluent charge in € /m^3:	iii	€2.49
Billable trade effluent volume (m^3)	iv	70,000
Mogden Charge €	v	(iii x iv) = €174,300
Total Trade Effluent Charge €		(i+ii+v) = €180,811

Trade effluent case study 6 – Industrial

Case Study	Trade Effluent Category	Activity	Trade Effluent discharged (m^3)	Trade Effluent samples (Strength)	Basis of variable charge
6	Category 3	Industrial	300,000	COD=100 SS=25	Mogden

This case study outlines the indicative impact of enduring trade effluent tariffs on a manufacturing Industrial Activity connected to the **wastewater** network and who has recorded trade effluent discharge of 300,000m^3 per annum. For Trade Effluent Category 3 customers, UÉ will charge a trade effluent compliance and licensing charge, a standing charge differentiated by customer class consistent with the approach taken for sanitary wastewater discharged by non-domestic customers and a Mogden formula charge. As the trade effluent discharge is above 250,000m^3, they will be charged the Band 4 wastewater standing charge.

Table 5.17 shows the indicative annual bill if this trade effluent customer immediately moves to the enduring tariffs following the implementation of harmonised trade effluent charging arrangements.

Table 5.17 Worked example of trade effluent bill calculation

		Indicative 2024/25 Tariffs
Trade effluent tariff components		
Standing Charge Wastewater	i	€38,652.54
Compliance & Licensing charge	ii	€7,215.55
R (Reception and Conveyance charge (per unit))		€0.54
V (Volume charge (per unit))		€0.93
B (Biological charge (per unit))		€0.49
S (Sludge charge (per unit))		€0.41
Ot (Customer COD (mg/l))		**100**
St (Customer SS (mg/l))		**25**
C= R + V + B(Ot/Os) + S(St/Ss)		
C is the resultant trade effluent charge in € /m3:	iii	€1.61
Billable trade effluent volume (m^3)	iv	300,000
Mogden Charge €	v	(iii x iv) = €483,000
Total TE charge €		(i+ii+v) = €528,868

Trade effluent case study 7 – Industrial

Case Study	Trade Effluent Category	Activity	Trade Effluent discharged (m^3)	Trade Effluent samples (Strength)	Basis of variable charge
7	Category 3	Industrial	1,100,000	COD= 800 SS=200	Mogden

This case study outlines the indicative impact of enduring trade effluent tariffs on a Dairy processing Industrial Activity connected to the **wastewater** network and who has a trade effluent discharge of 1,100,000m^3 per annum. For Trade Effluent Category 3 customers, UÉ will charge a trade effluent compliance and licensing charge, a standing charge differentiated by customer class consistent with the approach taken for sanitary wastewater discharged by non-domestic customers and a Mogden formula charge. As the trade effluent discharge is above 250,000m^3, they will be charged the Band 4 wastewater standing charge.

Table 5.18 shows the indicative annual bill if this trade effluent customer immediately moves to the enduring tariffs following the implementation of harmonised trade effluent charging arrangements.

Table 5.18 Worked example of trade effluent bill calculation

		Indicative 2024/25 Tariffs
Trade effluent tariff components		
Standing Charge Wastewater	i	€38,652.54
Compliance & Licensing charge	ii	€7,215.55
R (Reception and Conveyance charge (per unit)) V (Volume charge (per unit)) B (Biological charge (per unit)) S (Sludge charge (per unit)) Ot (Customer COD (mg/l)) St (Customer SS (mg/l))		€0.54 €0.93 €0.49 €0.41 **800** **200**
C= R + V + B(Ot/Os) + S(St/Ss)		
C is the resultant trade effluent charge in € /m^3:	iii	€2.61
Billable trade effluent volume (m^3)	iv	1,100,000
Mogden Charge	v	(iii x iv) = €2,871,000
Total TE charge €		(i+ii+v) = €2,916,868

6. Customer Communication

6.1 Customer communications and supports - water and wastewater tariffs

Non-domestic customers will see increases to their water and wastewater bills from 1st October 2024, and UÉ must communicate this change effectively to customers. Understanding the bill impact of the CRU's Decision will be challenging for customers.

UÉ will write to all of its non-domestic water and wastewater customers in Q3 2024 informing them of the tariff changes that will apply from 1st October 2024. The letter will outline the bill changes and capping arrangements, if applicable, for each non-domestic connection. This letter will include:

- Confirmation of the assigned AQ and customer classification;
- The process and deadline for querying the AQ calculation;
- Confirmation of whether the connection will move immediately (i.e. from 1st October 2024) to the 2024/2025 enduring tariffs or if a cap on the maximum bill will apply; and
- Confirmation of the enduring 2024/2025 tariffs and if a cap applies, the benefit of that cap.

UÉ's contact centre will be available to assist customers who may wish to speak with someone directly regarding the tariff changes. Customers who have Key Account Management (KAM[24]) support will be contacted by their KAM directly.

UÉ has engaged with non-domestic customer representative groups and other stakeholders throughout the CRU's consultation process. This engagement will continue and UÉ will provide further information on the CRU Decision[25] and UÉ's tariff implementation plan, as it becomes available, to business representative groups for dissemination to their members.

UÉ's website will continue to be updated as required and used as a source of information for customers and an updated Business Tariff Calculator will be available to reflect the CRU's Decision.

6.1.1 On-Line Business Tariff Calculator

To assist customers in understanding what impact 2024/2025 water and wastewater tariffs will have on their bill, UÉ's has published on its website an online Business Tariff Calculator. This calculator shows how a bill will change for individual connections using the 2024/2025 tariffs. For customers with multiple connections/meters separate calculations will need to be completed to determine the impact of the new tariffs on each.

The calculator can be found at: www.water.ie/business.

[24] UÉ's KAM team provides dedicated account management services to key, typically industrial, customer accounts.
[25] UÉ will brief stakeholders on 2024/2025 water and wastewater tariffs and indicative trade effluent tariffs including bill impacts.

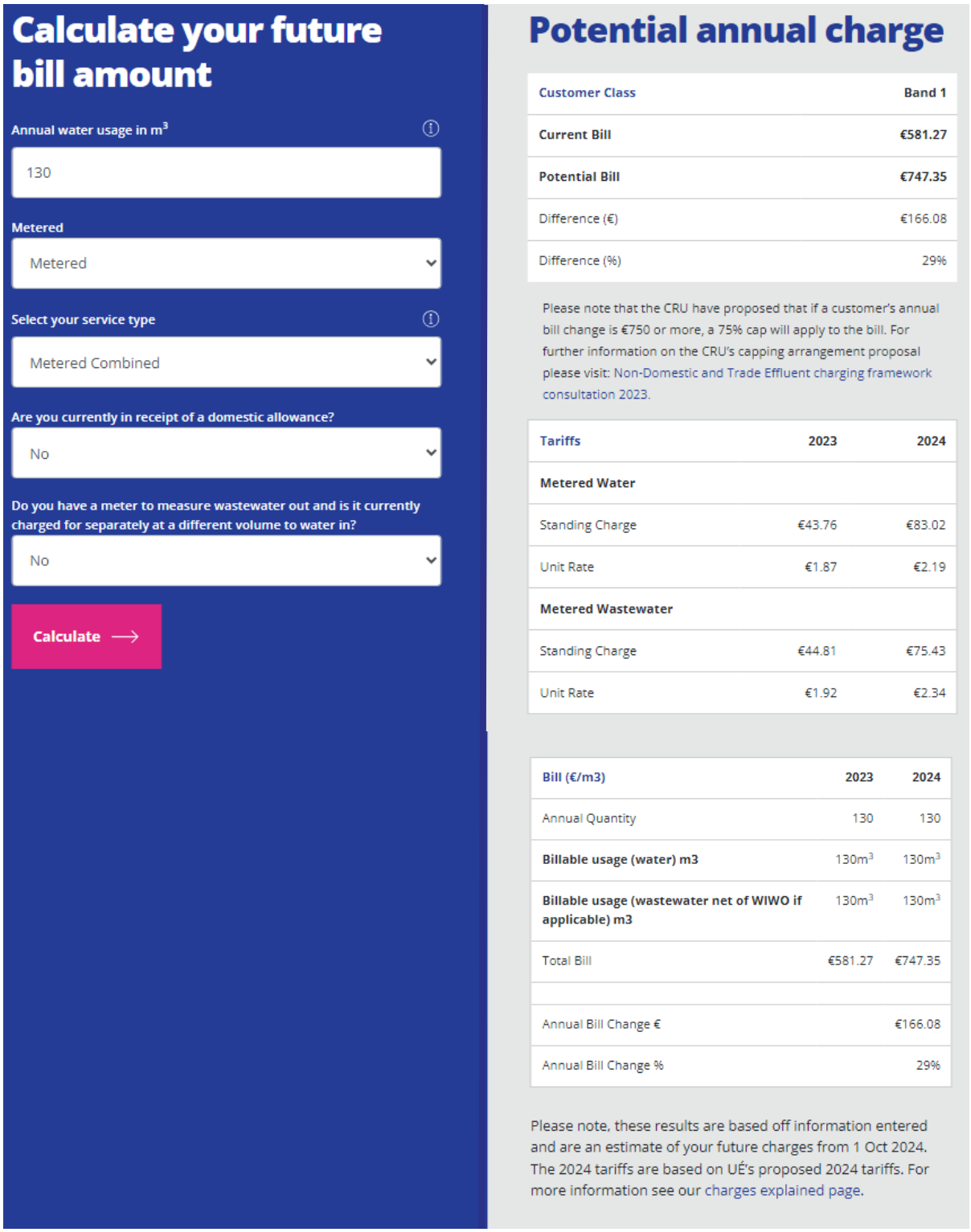
Alternatively navigate to www.water.ie select "For Business" along the banner at the top of the webpage and chose "Business Tariff Calculator" in the drop-down menu which appears.

To use the calculator the following information needs to be inputted:

- **Annual water usage in m^3** – non-domestic customers can type their annual quantity of usage here. Customers can find their usage on the annual letter UÉ sends informing customers of their tariff band or on their bill. If bill frequency is quarterly, annual usage can be estimated by multiplying the usage on one bill by 4.
- **Select your meter type** – this is a drop down list of meter type. Non-domestic customers can select the meter type that UÉ provides to them.
- **Select your service type** – this is a drop down list of service types provided by UÉ. Non-domestic customers can select the service that UÉ provides to them in this dropdown.
- **Are you currently in receipt of a domestic allowance**? – this is a drop down list with "Yes" or "No" options. Mixed use non-domestic customers in receipt of a domestic allowance should select "Yes" under this option, all other customers should select "No".
- **Is water out measured separately, from water in, for charging purposes?** – this is a drop down list with "Yes" or "No" options. This drop down menu will only apply for customers who have selected "Metered Water and Wastewater". Customers who have a "water in not equal to water out" agreement with UÉ under section 22 (9) of the Water Services (No. 2) Act 2013, stating the volume of water used does not equal their volume of wastewater, should select "Yes". All other customers should select "No".
- **Annual wastewater usage in m3** - non-domestic customers can type their annual quantity of wastewater collected here. This option will only apply for customers who have selected "Yes" to the previous drop down. The volume inserted should equate to any "water in not equal to water out agreement".

Figure 6.1 outlines the results for a customer, using 130m^3 of water and wastewater. It will calculate for a given level of usage an annual bill using both the current tariffs and the tariffs applicable from the 1st October 2024. The calculator will also inform customers of the expected impact on their annual bill, demonstrating the change in bill in both euro and percentage terms. In addition, the calculator will advise customers whether or not it is likely that they will move to the new tariffs immediately or whether a cap will apply.

Figure 6.1 Online Business Tariff Calculator



Calculate your future bill amount

Annual water usage in m^3

130

Metered

Metered

Select your service type

Metered Combined

Are you currently in receipt of a domestic allowance?

No

Do you have a meter to measure wastewater out and is it currently charged for separately at a different volume to water in?

No

Calculate →

Potential annual charge

Customer Class	Band 1
Current Bill	**€581.27**
Potential Bill	**€747.35**
Difference (€)	€166.08
Difference (%)	29%

Please note that the CRU have proposed that if a customer's annual bill change is €750 or more, a 75% cap will apply to the bill. For further information on the CRU's capping arrangement proposal please visit: Non-Domestic and Trade Effluent charging framework consultation 2023.

Tariffs	2023	2024
Metered Water		
Standing Charge	€43.76	€83.02
Unit Rate	€1.87	€2.19
Metered Wastewater		
Standing Charge	€44.81	€75.43
Unit Rate	€1.92	€2.34

Bill (€/m3)	2023	2024
Annual Quantity	130	130
Billable usage (water) m3	$130m^3$	$130m^3$
Billable usage (wastewater net of WIWO if applicable) m3	$130m^3$	$130m^3$
Total Bill	€581.27	€747.35
Annual Bill Change €		€166.08
Annual Bill Change %		29%

Please note, these results are based off information entered and are an estimate of your future charges from 1 Oct 2024. The 2024 tariffs are based on UÉ's proposed 2024 tariffs. For more information see our charges explained page.

6.2 Customer communications and supports - trade effluent tariffs

New national harmonised trade effluent charging arrangements will not come into effect until 1st October 2026. The trade effluent charges set out in the CRU's Decision are indicative and a further consultation will be required to set new, enduring trade effluent tariffs.

The new trade effluent charging arrangements, when implemented, will represent a significant change to the existing tariffing design and structure for some trade effluent customers and may result in customers facing bill increases through the application of the new harmonised regime. Understanding the impact of the trade effluent tariff design on annual bills will be a challenge to communicate. This will also pose challenges for UÉ's call centre in dealing with queries arising.

In advance of implementation go-live on 1st October 2026, UÉ will engage with trade effluent customers to help them understand the impact of the new arrangements on their bill. Some of the communications are likely to be consistent with the approach taken prior to the implementation of national water and wastewater tariffs on 1st October 2021.

Given the additional complexity involved in implementing harmonised trade effluent charging arrangements, UÉ is developing additional resources to support trade effluent customers. The range of measures are still in development and may vary depending on a customer's size and primary business activity. Literature will be developed to provide general information on the approved trade effluent charging arrangements to customers. UÉ expects to develop a trade effluent module as part of the water stewardship programme (see section 6.3) which will educate customers on best practices and ways to reduce bills. UÉ will directly engage with trade effluent customers who wish to mitigate future bill increases by providing information on how to improve efficiency of water use and pre-treat the levels of pollutants within trade effluent discharge.

UÉ's contact centre will be available to assist customers who may wish to speak with someone directly regarding updates to the Framework to include harmonised trade effluent charging arrangements. Customers who have KAM support can contact their KAM directly. UÉ's website will be also used as a source of information for customers with relevant information on trade effluent charging arrangements and supports to be made available.

UÉ has engaged with business representative groups and other stakeholders throughout the CRU's consultation process. This engagement will continue and will be an important aspect of UÉ's communication strategy in advance of implementation go-live on 1st October 2026.

UÉ will set out more definitive information on the customer communications and supports it will take to help customers prepare for the future trade effluent charging arrangements as part of a further CRU consultation which will set the new trade effluent tariffs.

6.3 Other supports and related policies

Listed below is a range of other UÉ supports and related policies for non-domestic and trade effluent customers which are worth highlighting for context and to aid clarity.

i. Water Conservation

UÉ places a strong emphasis on water conservation. There are initiatives in place to support non-domestic customers in conserving water.

UÉ has developed a range of water conservation materials which is available on its website (www.water.ie). In future communications following the CRU's Decision, UÉ will continue to outline to customers ways in which they can conserve water and reduce their bills.

To date we have provided general advice for all business on www.water.ie/conservation/business/ where practical tips to conserve water can be viewed. These tips are especially useful for smaller companies and offices.

Additionally, UÉ has collaborated with sectors such as farming, hospitality, manufacturing, pharmaceuticals, retail, education, hospitals, and construction to create sector-specific water conservation campaigns.

UÉ is also delivering the UÉ Water Stewardship Programme in partnership with the Sustainable Enterprise Skillnet. This programme aids businesses in reducing their water usage and operating costs while protecting the environment. With over 750 large water users trained nationally, the development of over 1800 water conservation projects, an average water reduction of 20% per site, and 70% of participants committed to annual water targets, UÉ's efforts are transforming the water landscape.

The aim is to provide our business customers with innovative support, education, and customer care to facilitate water conservation. The Water Stewardship Programme, accredited by the European Water Stewardship Standard (EWS), offers the following benefits:

- *Save Water and Money* – the programme provides businesses with the knowledge and skills to identify and deliver verified water and related resource efficiency savings;
- *Protect the environment* – businesses will learn the key principles of water stewardship and what actions are required to improve their environmental performance; and
- *Achieve Certification* – businesses will boost their reputation and meet their corporate sustainability commitments, including for Origin Green[26] and other reporting initiatives.

For more information, visit www.water.ie/stewardship.

[26] Origin Green is Ireland's food and drink sustainability programme. Farms and food manufacturing businesses sign up to making measurable commitments to producing in a sustainable manner, with progress independently assessed and verified.

ii. Leak allowance policy

Non-domestic customers who identify a customer side leak on their premises can avail of a leak allowance provided the leak is fixed promptly. Details on eligibility criteria, timelines to identify and fix leaks and how to apply can be found on UÉ's website.

For more information visit: https://www.water.ie/business/billing/leakage-allowance/.

iii. Mixed Use Customers – first fix for free

The First Fix Free scheme aims to help reduce the amount of water wasted through leaks on customers' properties. The scheme provides customers with support in identifying and fixing leaks. UÉ offers a free leak investigation and, when a potential leak has been identified, a free repair to a leak detected on an external supply pipe on the customer's property.

The scheme is aimed at domestic customers but is also available to mixed used customers provided *the connection has been deemed by UÉ to predominantly use water for domestic purposes*. Connections providing water services for both non-domestic and domestic purposes at a premises are termed 'mixed use'.

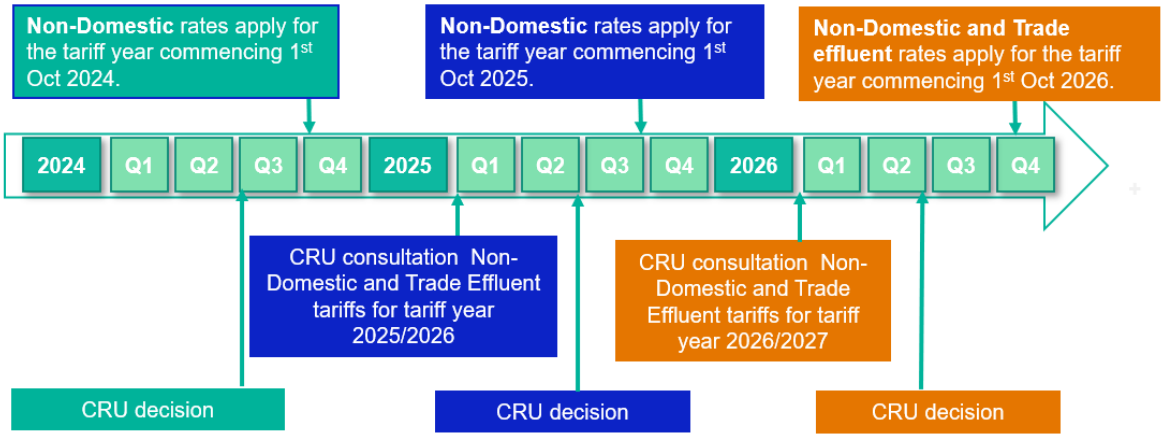
For more information visit: https://www.water.ie/help/leaks/first-fix-free/

7. Next Steps

Figure 7.1 illustrates the planned timeline for implementing this CRU Decision and a further CRU consultation which will consider setting:

- non-domestic water and wastewater tariff levels for the 2025/2026 tariff year; and
- Indicative trade effluent tariffs.

Figure 7.1 Implementing the CRU decision and future tariff consultations



The frequency for how changes to non-domestic and trade effluent tariff rates will be consulted on and decided from October 2026 onwards is yet to be determined. In general, setting tariffs on an annual basis is best for customers as tariff levels are regularly updated in line with the costs of providing services to customers, thus minimising the risk of large jumps in tariff levels over time. A further phase of CRU consultation will consider if there will be a need to introduce transitional arrangements for trade effluent customers, to transition them from their existing tariff and levels to the new trade effluent charging arrangements.

The sections below detail a number of items which UÉ will be working on over the coming months in preparation for updated non-domestic water and wastewater tariffs.

i. Water Charges Plan

An updated Water Charges Plan will be published in advance of new water and wastewater tariffs being implemented on 1st October 2024.

ii. Customer communications and supports

As set out in section 6, UÉ will write to all of its non-domestic water and wastewater customers in Q3 2024 informing them of the tariff changes that will apply from 1st October 2024. The letter will outline the bill changes and capping arrangements, if applicable, for each non-domestic connection. KAM support will be available to directly support

customers and UÉ's website will be updated with relevant information on new tariffs including an online tariff calculator which can be used to assess individual bill impact. UÉ will also continue to proactively engage with business representative groups in advance of 1st October 2024.

iii. Updated tariffs to apply from 1st October 2025

UÉ will submit a proposal to the CRU later in 2024 on updated 2025/2026 non-domestic water and wastewater tariffs to reflect UÉ's up to date allowable revenue and customer data (volume, connections and PE). UÉ's proposals are expected to cover:

- Water and wastewater tariffs to apply from 1st October 2025
- Modifications to cost allocation rules to address a perverse incentive inherent in the non-domestic tariff design (if applicable)
- Updates to bill capping arrangements for water and wastewater connections (if applicable)
- Updates to tariff application rules for water and wastewater connections (if applicable)
- Updated indicative trade effluent tariffs[27]
- Tariff application rules for trade effluent connections
- Transitional arrangements for trade effluent customers

[27] Trade effluent tariffs will not be implemented until 1st October 2026 and, therefore, a further CRU consultation will consider the calculation of the tariffs that will apply to trade effluent customers.

8. International price comparison analysis

This section considers the impact of the CRU's tariff design decision on non-domestic customers and on trade effluent customers (based on indicative charges) and compares annual charges to those faced by customers in a range of international regions.

- **Section 8.1** compares the annual water and wastewater charges that will apply from 1st October 2024 with a range of international regions;
- **Section 8.2** compares the indicative trade effluent annual charges with a range of international regions; and
- **Section 8.3** details the sources, caveats and assumptions used in compiling this analysis.

8.1 Water and wastewater tariff comparative analysis

This section considers how UÉ's 2024/2025 non-domestic water and wastewater annual charges compares to those faced by customers in a selection of 20 international regions. A geographically diverse range of regions has been included with the National Competitiveness Council's (NCC) analysis[28] of water services costs influencing the selection of the regions.

The sample range included within the analysis is constrained by some data limitations. Source data has been collated from high-quality, internationally respected sources, and where necessary, caveats on data are set out in section 8.3. Reference sources for all information in this section are provided in Table 8.1 at the end of the section.

The comparison is based on the total charges currently payable by customers for a given level of annual consumption in each region. The UÉ annual charges are based on the 2024/2025 tariffs approved by the CRU. The analysis is conducted for eight different levels of annual consumption ranging from 100m^3 to 2,500,000m^3.

[28] Costs of doing business in Ireland 2019, the National Competitiveness Council, April 2019 (Link here)

Figure 8.1 UÉ's annual charges compared to the average of other regions (AQ < 20,000m³)

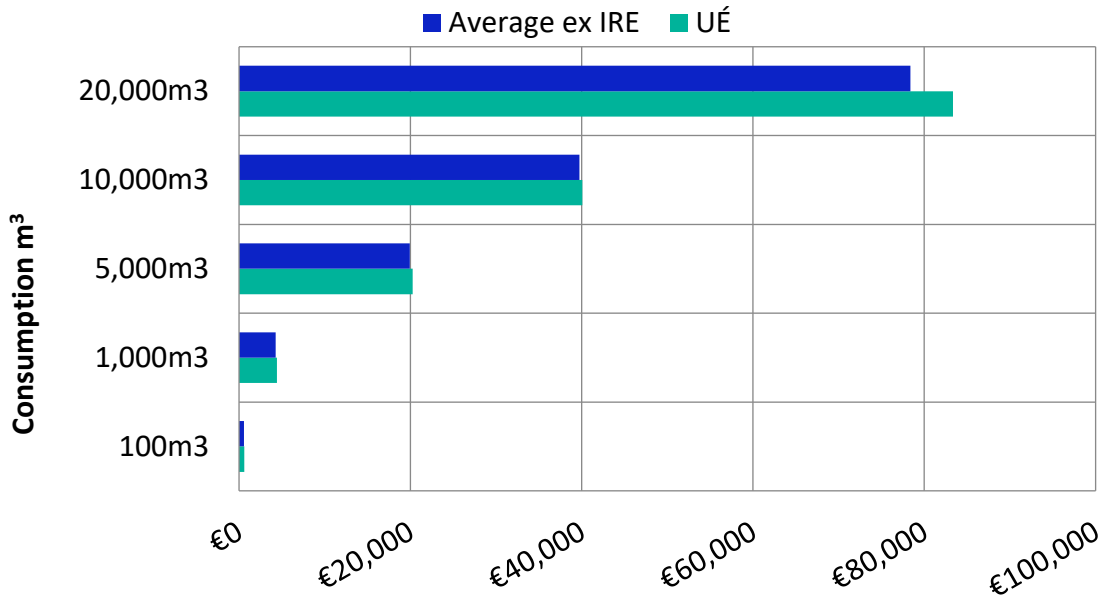
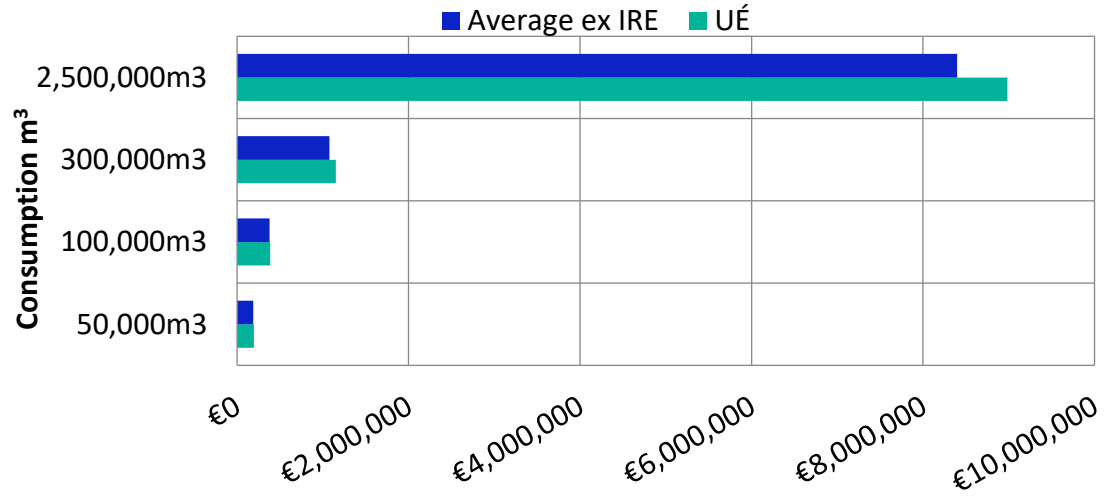


Figure 8.2 UÉ's annual charges compared to the average of other regions (AQ > 20,000m³)

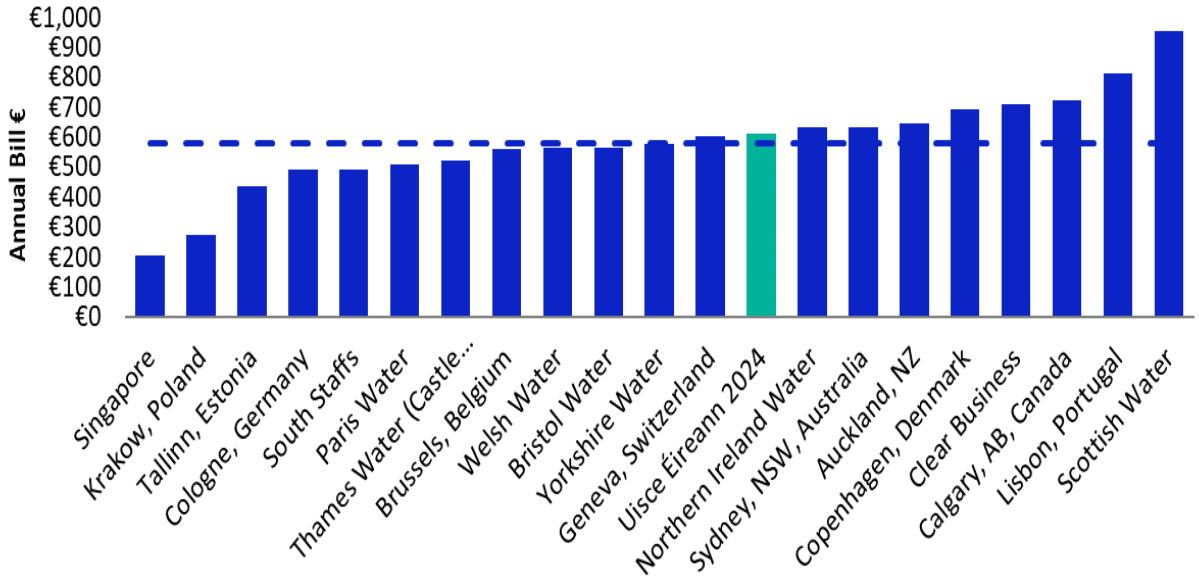


As can be seen in figure 8.1 and 8.2, UÉ's combined charges for water and wastewater are close to but slightly higher than the average of the other sampled regions (excluding UÉ) at each level of consumption. The remainder of this section sets out the comparisons of annual charges at different levels of consumption.

Comparison of the annual charges faced by non-domestic customers consuming 100m³ per annum

This section compares the annual, charges faced by an UÉ non-domestic customer consuming 100m³ annually to similar customers in other regions. Figure 8.3 illustrates UÉ's annual charge relative to other regions.

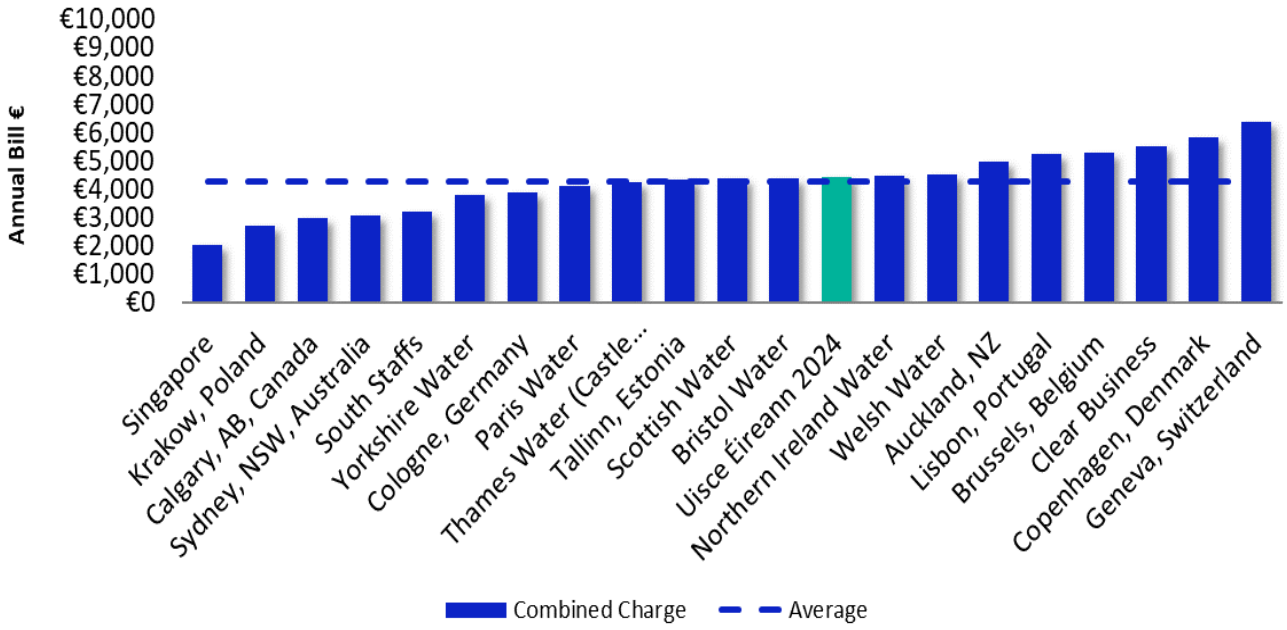
Figure 8.3 Annual charge for a 100m³ combined service customer



Comparison of annual charges faced by non-domestic customers consuming 1,000m³ p.a.

This section compares the annual, charges faced by an UÉ non-domestic customer consuming 1,000m³ annually to customers in other regions. Figure 8.4 illustrates UÉ's annual charge relative to other regions.

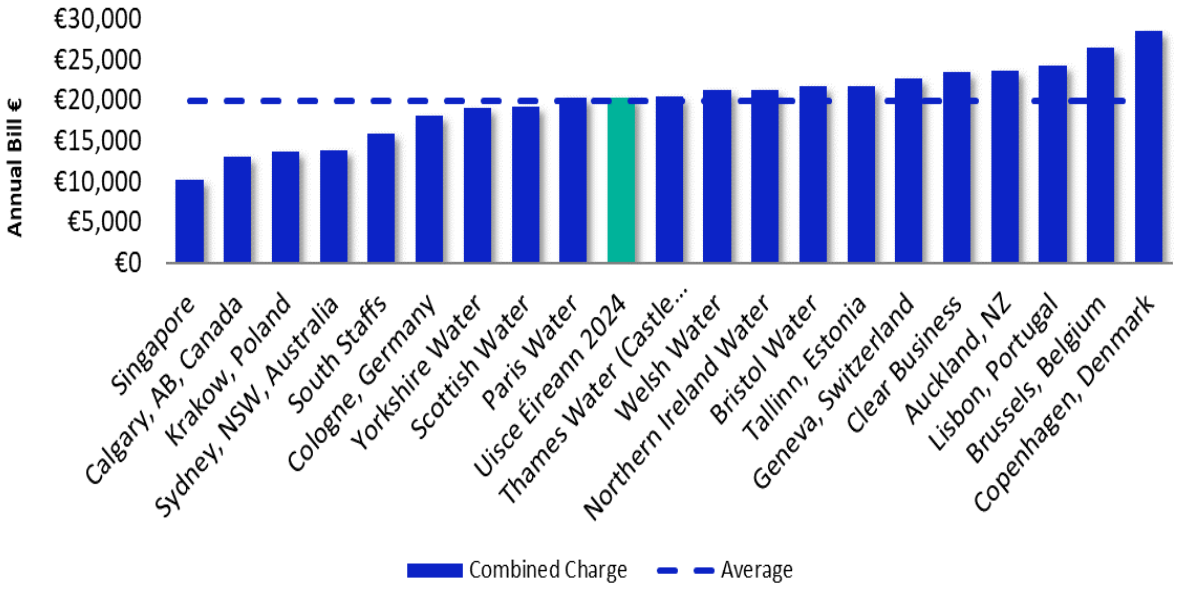
Figure 8.4 Annual charge for a 1,000m³ combined service customer



Comparison of annual charges faced by non-domestic customers consuming 5,000m³ p.a.

This section compares the annual, charges faced by an UÉ non-domestic customer consuming 5,000m³ annually to customers in other regions. Figure 8.5 illustrates UÉ's annual charge relative to other regions.

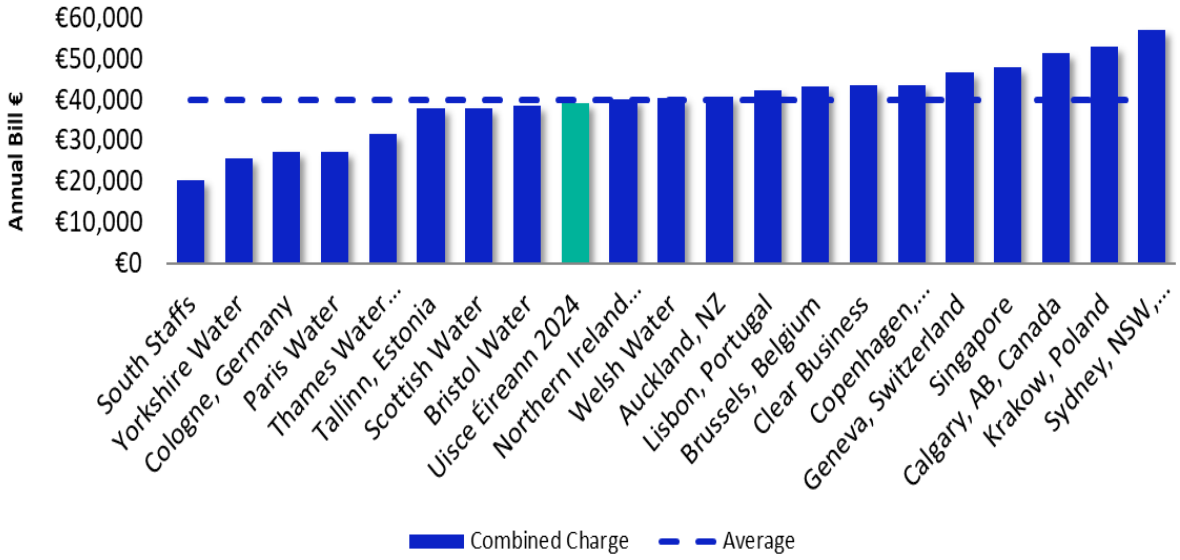
Figure 8.5 Annual charge for a 5,000m³ combined service customer



Comparison of annual charges faced by non-domestic customers consuming 10,000m³ pa

This section compares the annual, charges faced by an UÉ non-domestic customer consuming 10,000m³ annually to customers in other regions. Figure 8.6 illustrates UÉ's annual charge relative to other regions.

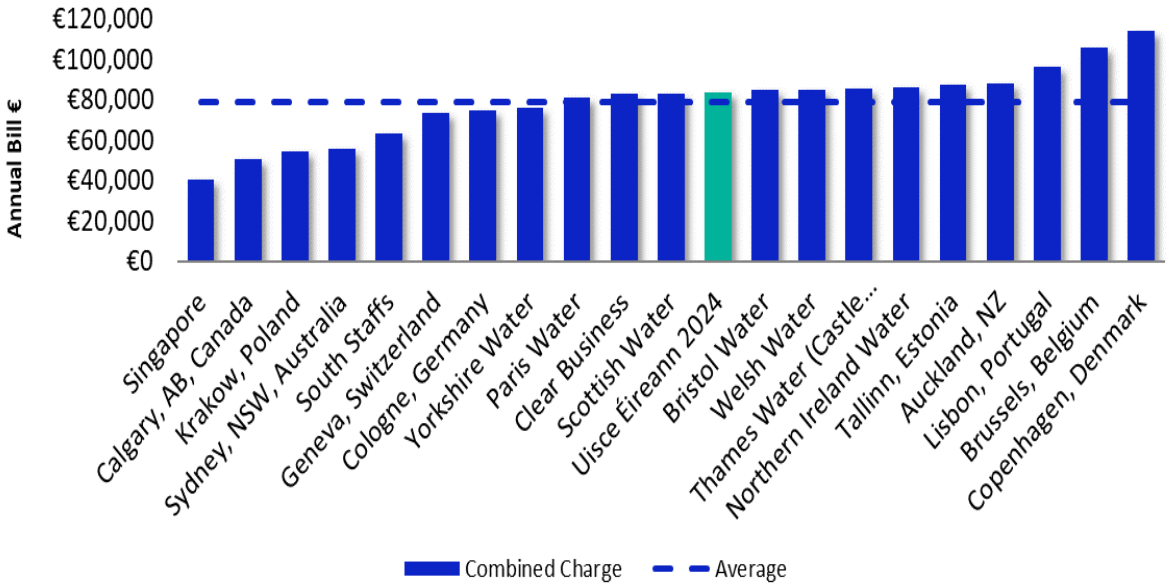
Figure 8.6 Annual charge for a 10,000m³ combined service customer



Comparison of annual charges faced by non-domestic customers consuming 20,000m³ p.a.

This section compares the annual, charges faced by an UÉ non-domestic customer consuming 20,000m³ annually to customers in other regions. Figure 8.7 illustrates UÉ's annual charge relative to other regions.

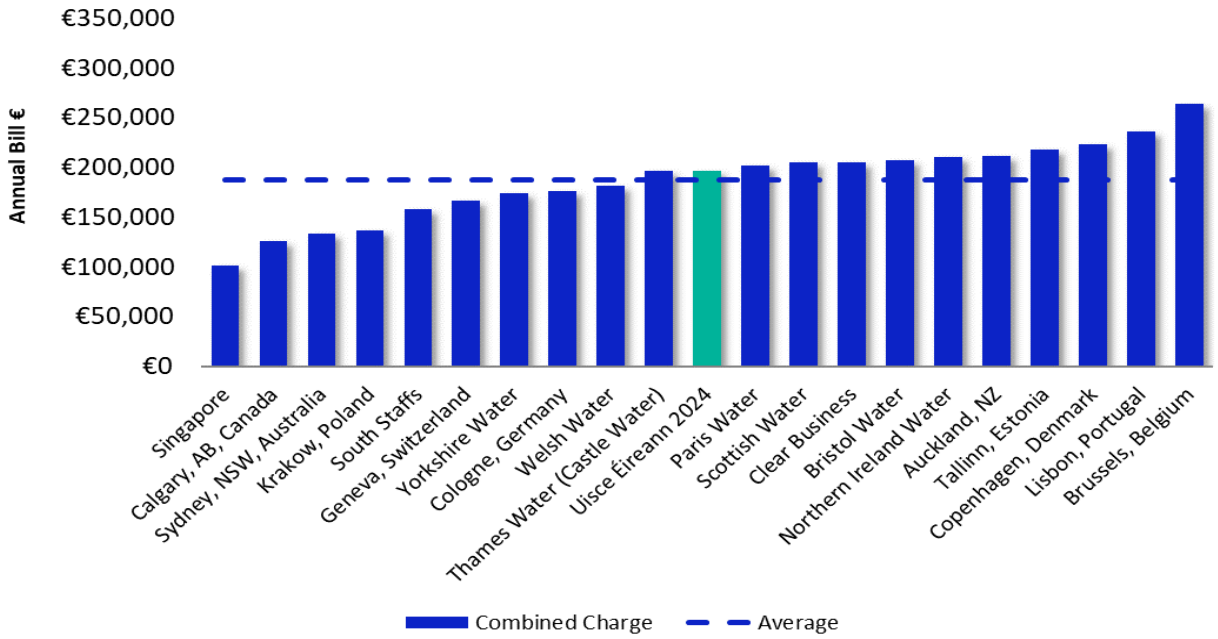
Figure 8.7 Annual charge for a 20,000m³ combined service customer



Comparison of annual charges faced by non-domestic customers consuming 50,000m³ p.a.

This section compares the annual, charges faced by an UÉ non-domestic customer consuming 50,000m³ annually to customers in other regions. Figure 9.8 illustrates UÉ's annual charge relative to other regions.

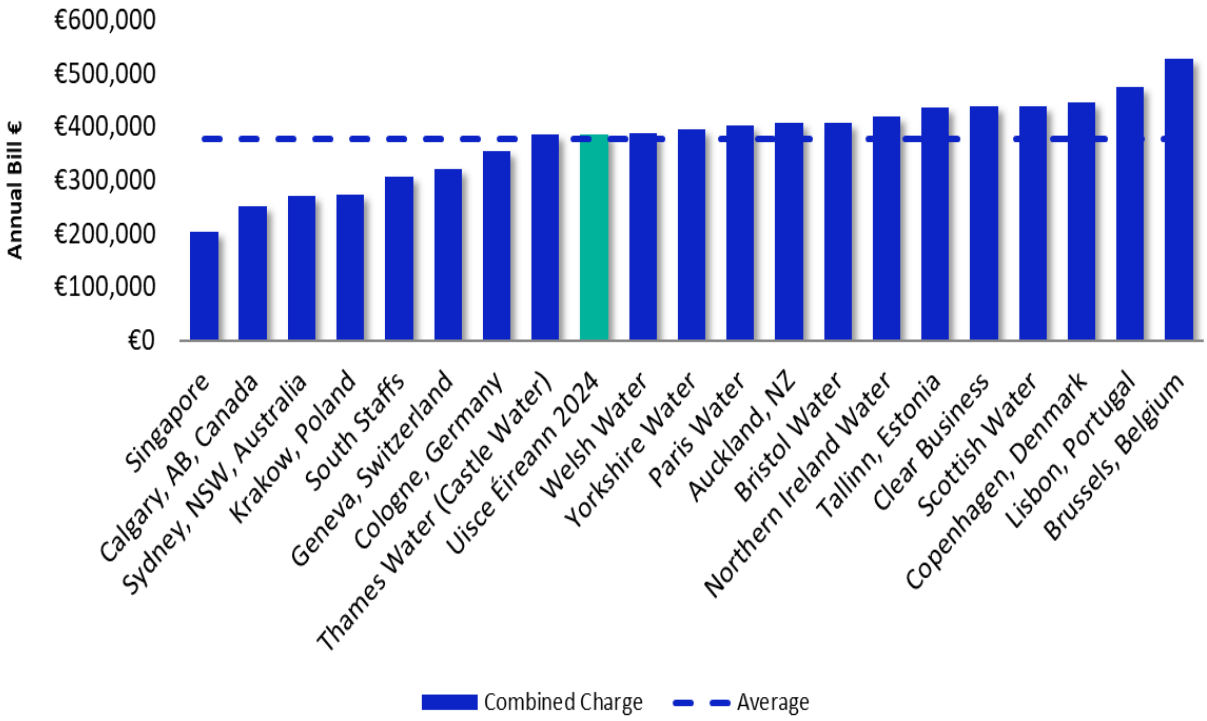
Figure 8.8 Annual charge for a 50,000m³ combined service customer



Comparison of annual charges faced by non-domestic customers consuming 100,000m³ p.a.

This section compares the annual, charges faced by an UÉ non-domestic customer consuming 100,000m³ annually to customers in other regions. Figure 8.9 illustrates UÉ's annual charge relative to other regions.

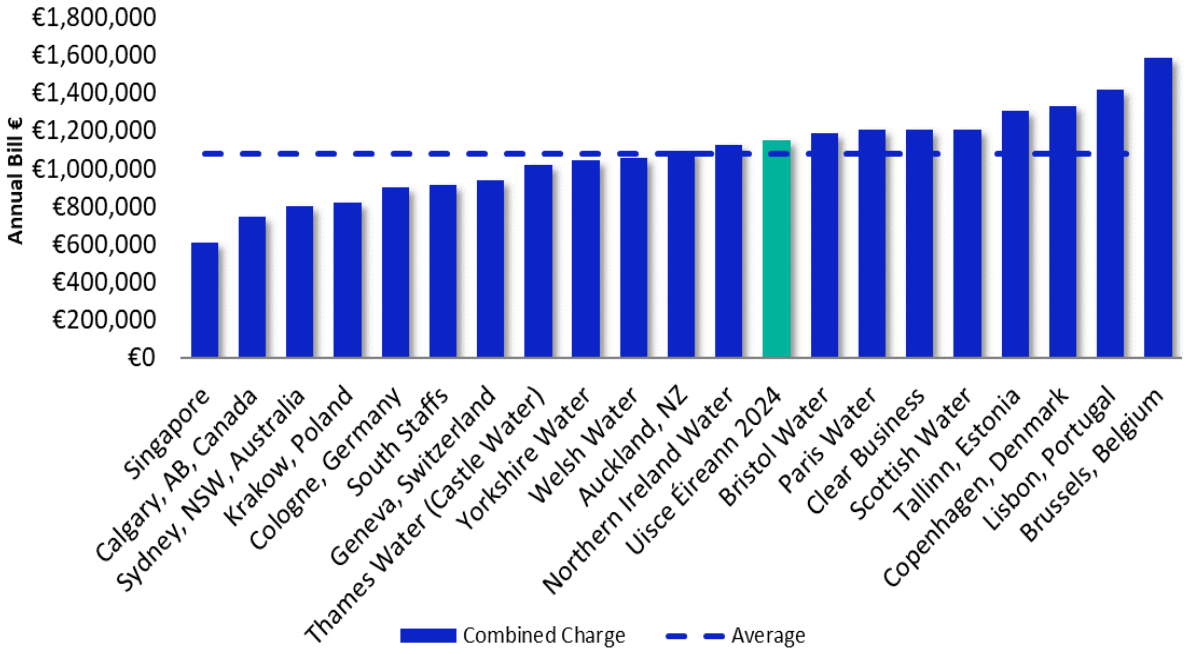
Figure 8.9 Annual charge for a 100,000m³ combined service customer



Comparison of annual charges faced by non-domestic customers consuming 300,000m³ p.a.

This section compares the annual, charges faced by an UÉ non-domestic customer consuming 300,000m³ annually to customers in other regions. Figure 8.10 illustrates UÉ's annual charge relative to other regions.

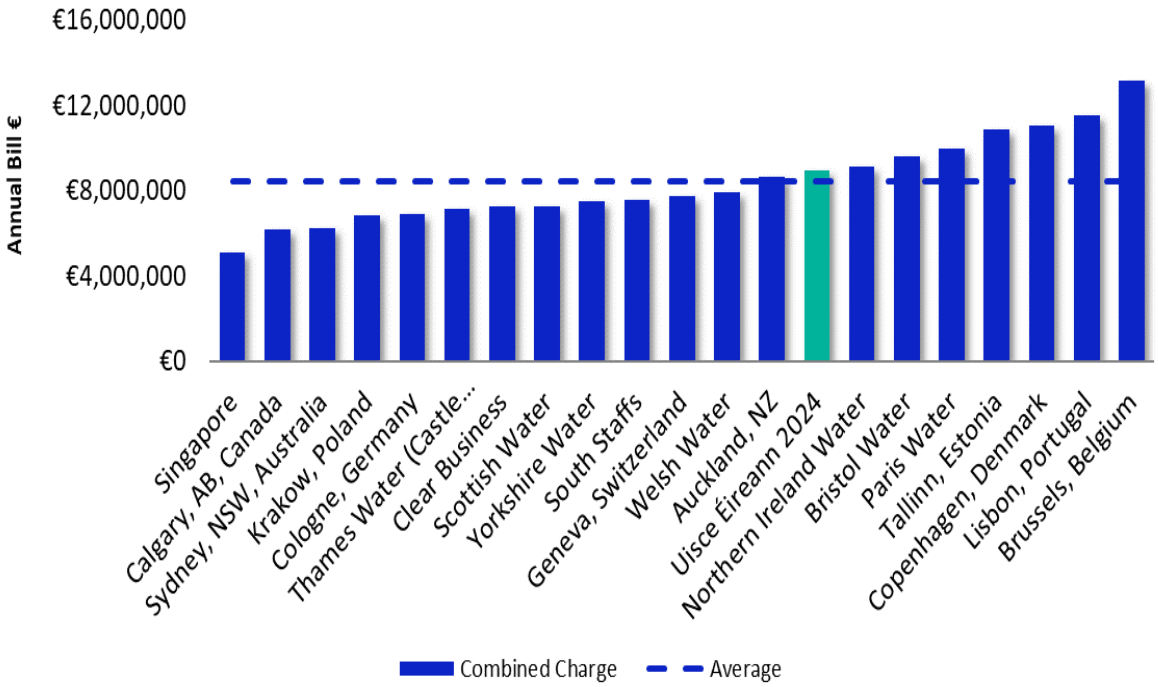
Figure 8.10 Annual charge for a 300,000m³ combined service customer



Comparison of annual charges faced by non-domestic customers consuming 2,500,000m³ p.a.

This section compares the annual, charges faced by an UÉ non-domestic customer consuming 2,500,000m³ annually to customers in other regions. Figure 8.11 illustrates UÉ's annual charge relative to other regions.

Figure 8.11 Annual charge for a 2,500,000m³ combined service customer



8.2 Trade effluent international comparative analysis

This section considers the impact of the CRU's trade effluent tariff design decision on trade effluent customers and compares indicative annual charges to those faced by trade effluent customers in a range of international regions. The analysis for Trade Effluent Category 1 customer compares the indicative annual charges to those faced by trade effluent customers across a range of 20 international comparators. The analysis for Trade Effluent Category 2 and 3 customer compares the indicative annual charges to those faced by trade effluent customers across a range of 8 UK utilities.

The range of utilities included in the analysis is constrained by some limitations listed below:

- Not all utilities include a specific trade effluent charge;
- There are inconsistencies in how different UK regions categorise what is trade effluent, and these rules may not align with Irish legislation making meaningful comparisons difficult; and
- There are many and often complex structures in place in other utilities, which may not allow for a meaningful bill comparison. For example, additional or fewer pollutants may be included.

On this basis the sample included has been sourced from regions where there are comparable rules for charging trade effluent and where the tariff structures can be easily compared with UÉ's tariffs. Source data has been collated from high-quality, internationally respected sources, and where necessary, caveats on data are set out in section 8.3. Reference sources for all information in this section are provided in Table 8.1.

The UÉ annual charges are based on the indicative 2024/2025 charges. The comparison is broken down into two sections to align with the trade effluent tariff classification rules.

- Section 8.2.1 considers the indicative tariffs for Trade Effluent Category 1. This analysis is conducted for a range of different wastewater discharge volumes. Trade effluent connections classified to Trade Effluent Category 1 will not be charged a Mogden formula in Ireland but may be charged on this basis in other jurisdictions.

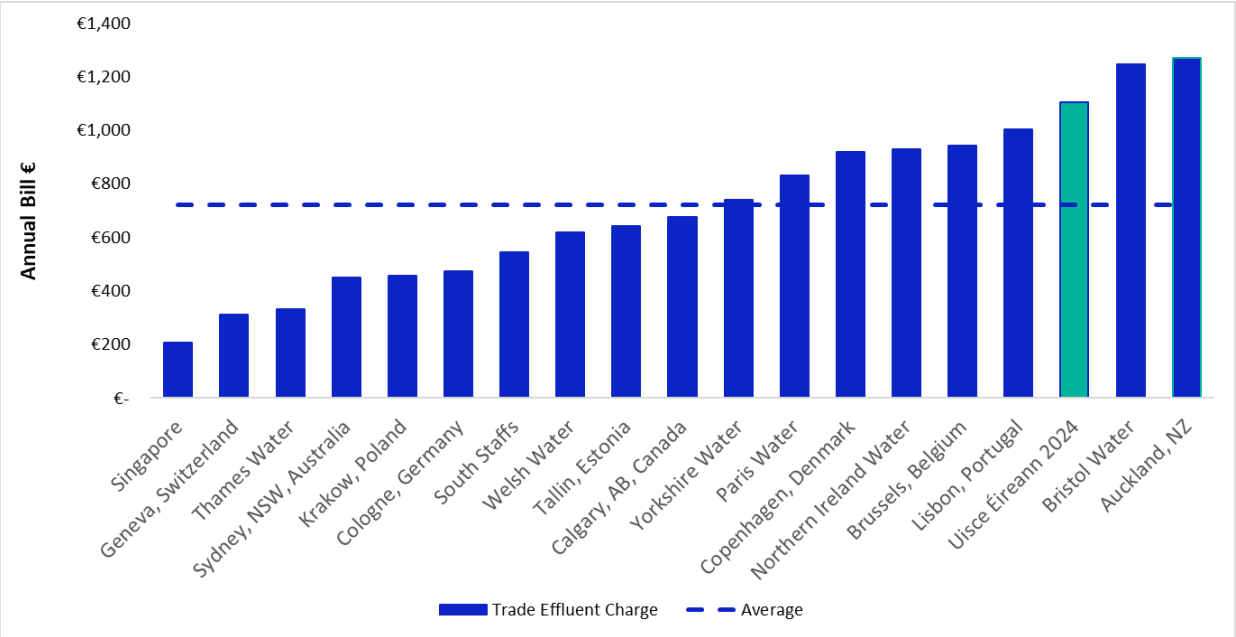
- Section 8.2.2 considers the indicative tariffs for Trade Effluent Category 2 and 3 and compares these to a range of international comparators. This analysis is conducted for the five most common Industrial Activities. Trade effluent connections classified to Trade Effluent Category 2 and 3 will be charged the Mogden formula. Average wastewater discharge volumes and average values of COD mg/l and SS mg/l from UÉ's database are relied on for this analysis.

8.2.1 Comparison of charge applying to connections in Trade Effluent Category 1

Comparison of the annual trade effluent charges faced by Trade Effluent Category 1 customers discharging 300m^3 per annum

Trade Effluent Category 1 charges (standing charge, volumetric charge and compliance and licensing charge) faced by a customer discharging 300m^3 annually. Figure 8.12 illustrates UÉ's indicative annual charge relative to other regions.

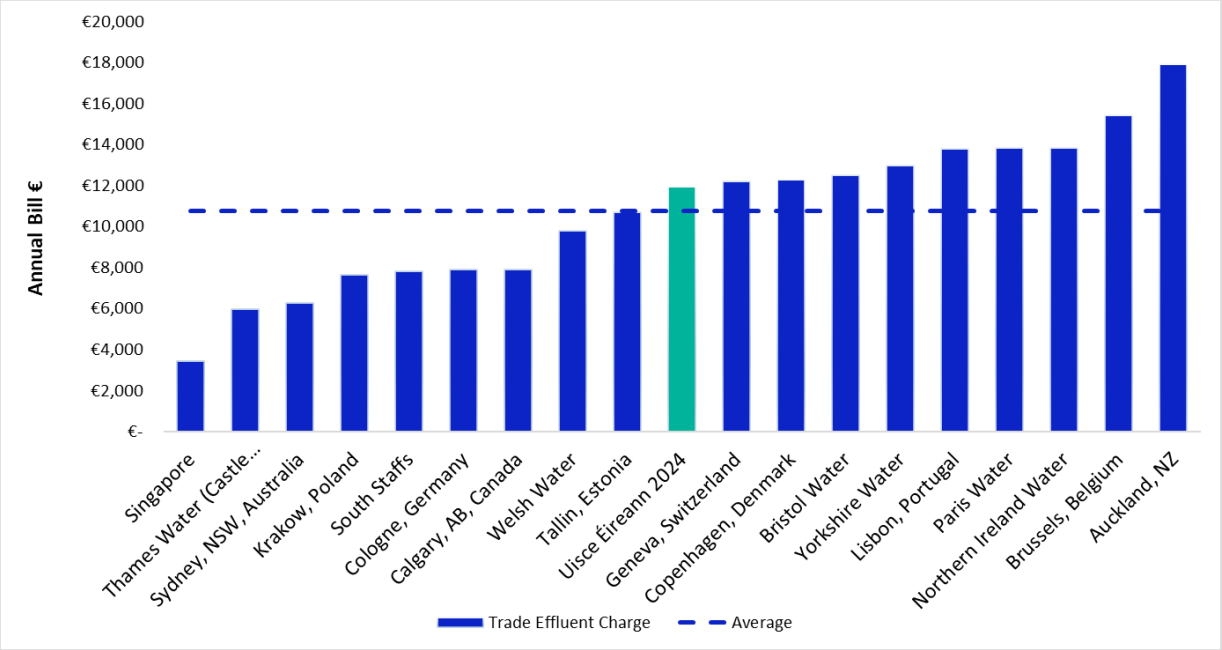
Figure 8.12 Trade effluent charges for 300m^3 per annum



Comparison of the annual trade effluent charges faced by Trade Effluent Category 1 customers discharging 5,000m^3 per annum

Trade Effluent Category 1 charges (standing charge, volumetric charge and compliance and licensing charge) faced by a customer discharging 5,000m^3 annually. Figure 8.13 illustrates UÉ's indicative annual charge relative to other regions.

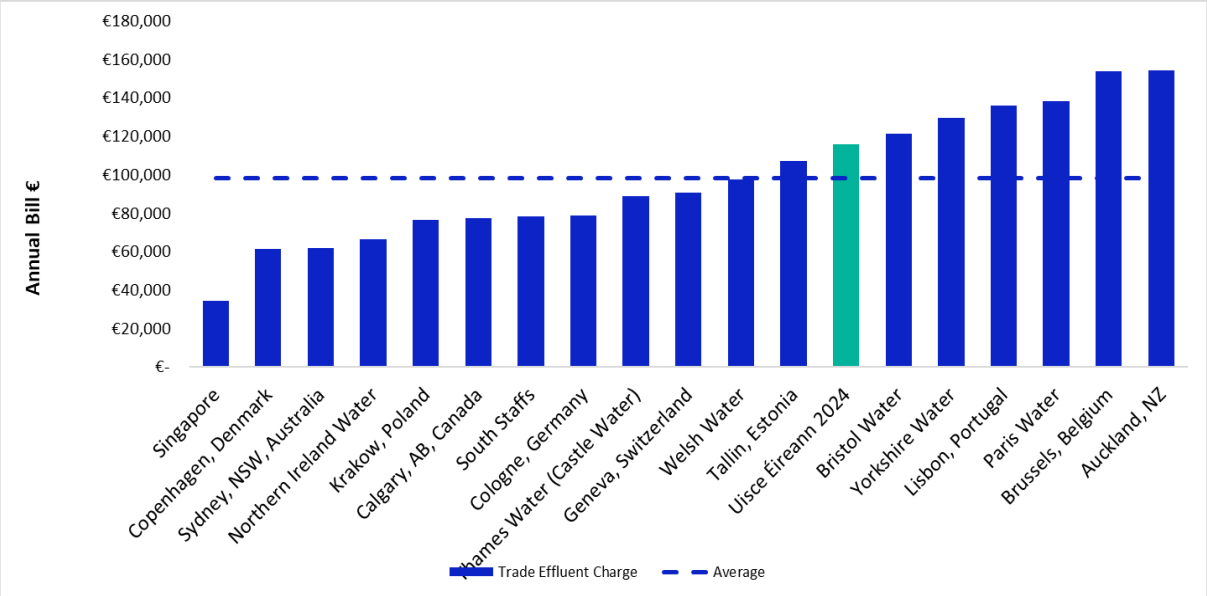
Figure 8.13 Trade effluent charges for 5,000m³ per annum



Comparison of the annual trade effluent charges faced by Trade Effluent Category 1 customers discharging 50,000m³ per annum

Trade Effluent Category 1 charges (standing charge, volumetric charge and compliance and licensing charge) faced by a customer discharging 50,000m³ annually. Figure 8.14 illustrates UÉ's indicative annual charge relative to other regions.

Figure 8.14 Trade effluent charges for 50,000m³ per annum



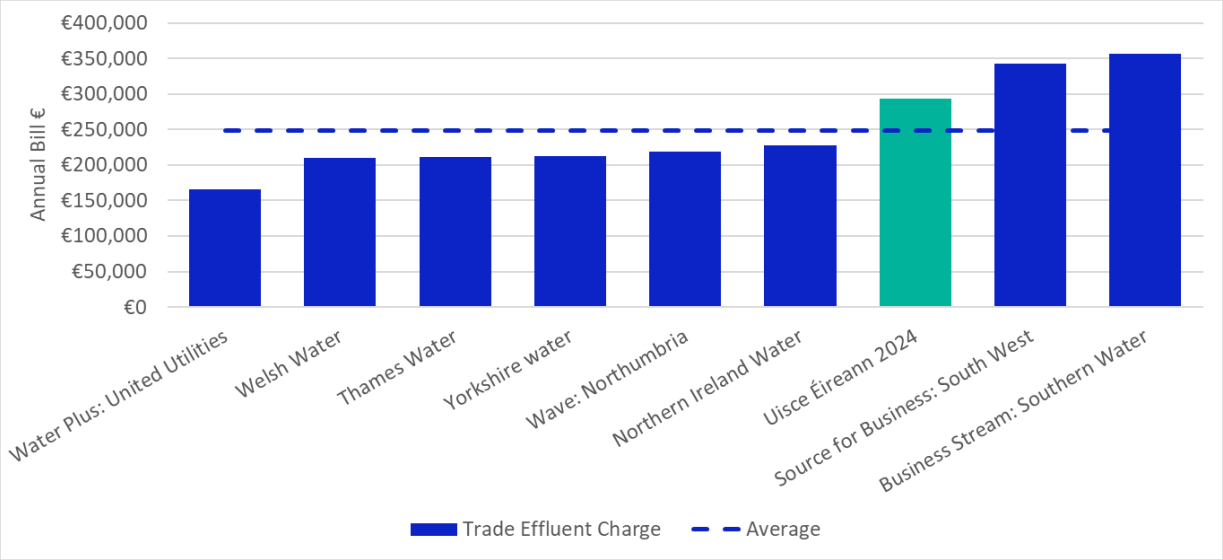
8.2.2 Comparison of charge applying to connections in Trade Effluent Category 2 and 3

Comparison of the annual charges faced by trade effluent customers in TEC Code 1.1 (manufacturing of alcoholic beverages sector)

This section compares the annual, indicative charges faced by a typical trade effluent customer categorised into TEC Code 1.1. With an Annual Quantity of 49,500m^3, the UÉ Trade Effluent Category 2 tariffs apply. The annual average measure of COD is 3,207 mg/l and the annual average measure of SS is 370mg/l.

Figure 8.15 illustrates UÉ's indicative annual charge inclusive of Mogden formula charge, standing charge and compliance and licensing charge, relative to the charges that apply in other regions.

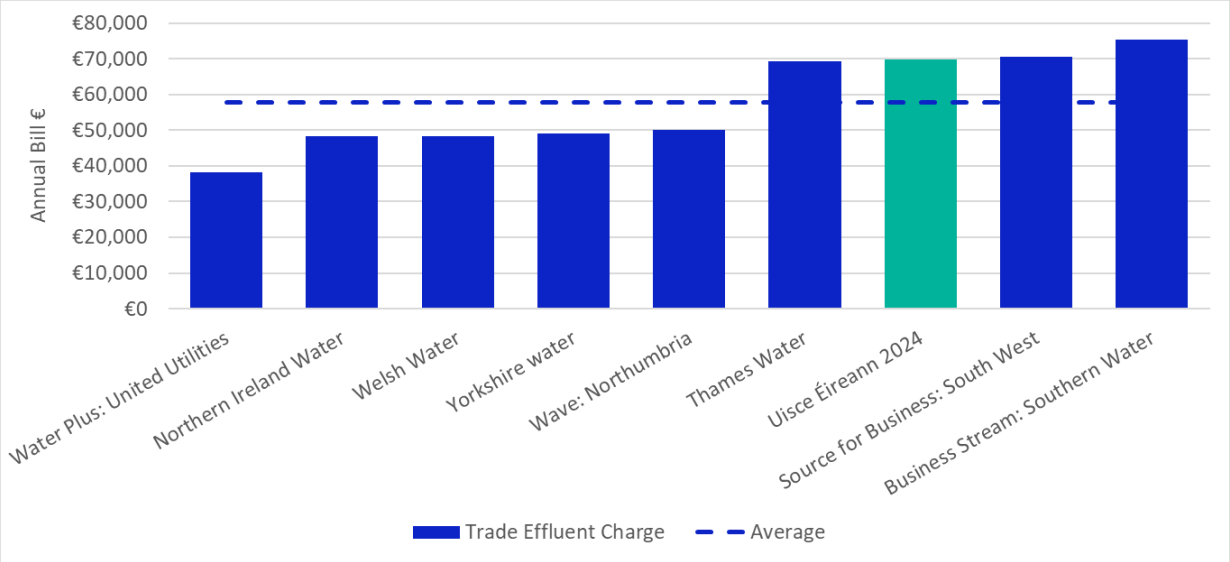
Figure 8.15 Annual Charge for TEC Code 1.1



Comparison of the charging variables faced by trade effluent customers in TEC Code 9.2 (secondary food production and preparation) sector

This section compares the annual, indicative charges faced by a typical trade effluent customer categorised into TEC Code 9.2. With an Annual Quantity of 16,697m^3, the UÉ Trade Effluent Category 2 tariffs apply. The annual average measure of COD is 1616 mg/l and the annual average measure of SS is 330mg/l. Figure 8.16 illustrates UÉ's indicative annual charge inclusive of Mogden formula charge, standing charge and compliance and licensing charge relative to the charges that apply in other regions.

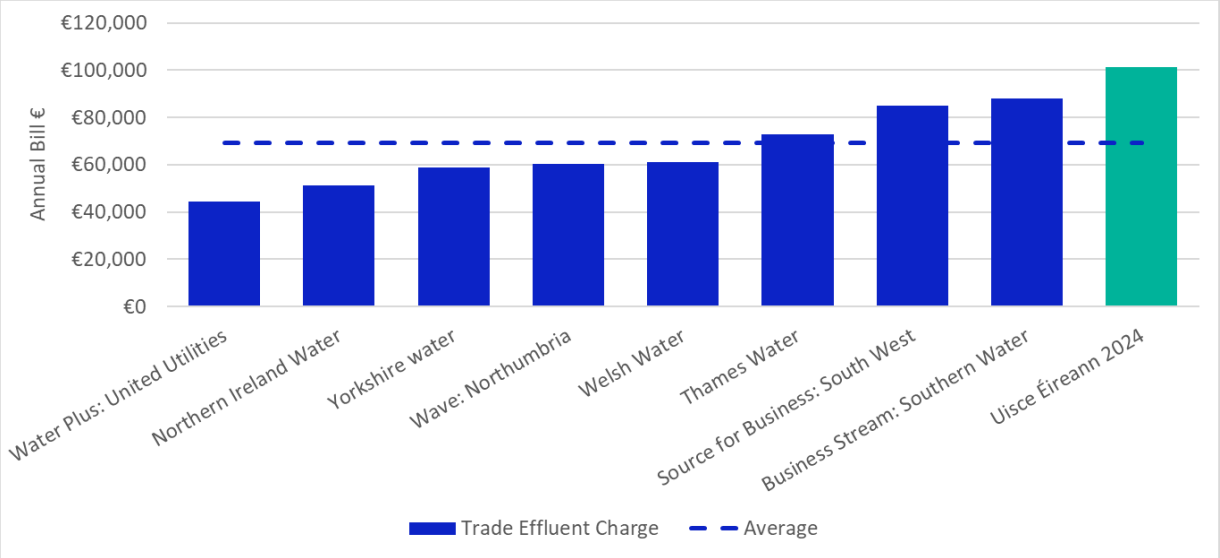
Figure 8.16 Annual Charge for TEC Code 9.2



Comparison of the charging variables faced by trade effluent customers in TEC Code 4.1 (manufacturing of chemicals)

This section compares the annual, indicative charges faced by a typical trade effluent customer categorised into TEC Code 4.1. With an annual quantity of 31,059m^3, the UÉ Trade Effluent Category 2 tariffs apply. The annual average measure of COD is 782 mg/l and the annual average measure of SS is 51mg/l. Figure 8.17 illustrates UÉ's indicative annual charge inclusive of Mogden formula charge, standing charge and compliance and licensing charge relative to the charges that apply in other regions.

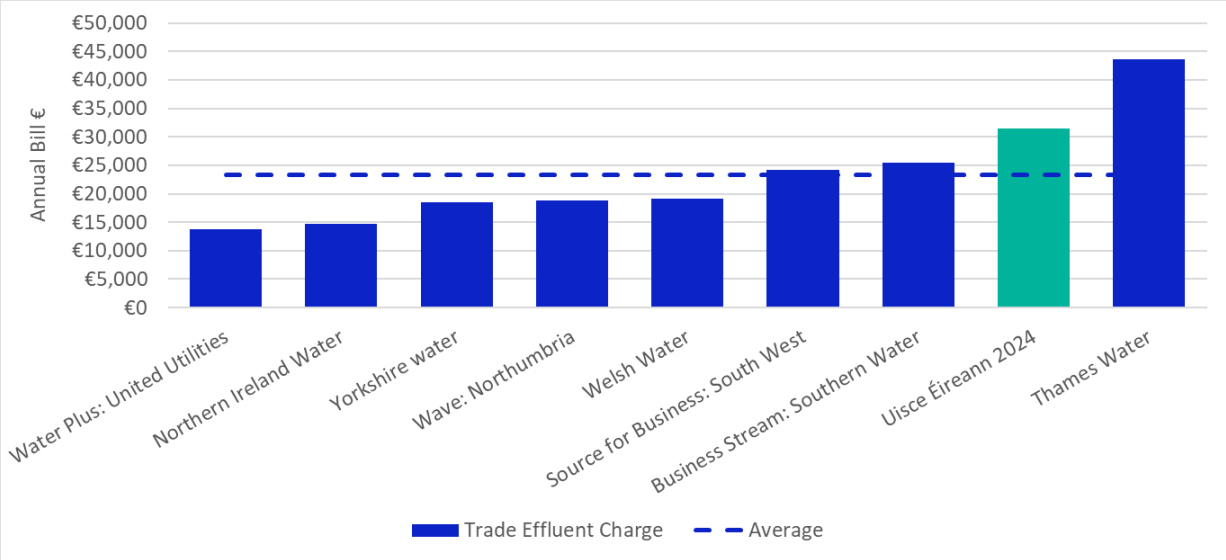
Figure 8.17 Annual Charge for TEC Code 4.1.



Comparison of the charging variables faced by trade effluent customers in TEC Code 8.1 (engineering based manufacturing) sector

This section compares the annual, indicative charges faced by a typical trade effluent customer categorised into TEC Code 8.1. With an annual quantity of 11,414m^3, the UÉ Trade Effluent Category 2 tariffs apply. The annual average measure of COD is 414 mg/l and the annual average measure of SS is 64mg/l. Figure 8.18 illustrates UÉ's indicative annual charge inclusive of Mogden formula charge, standing charge and compliance and licensing charge relative to the charges that apply in other regions.

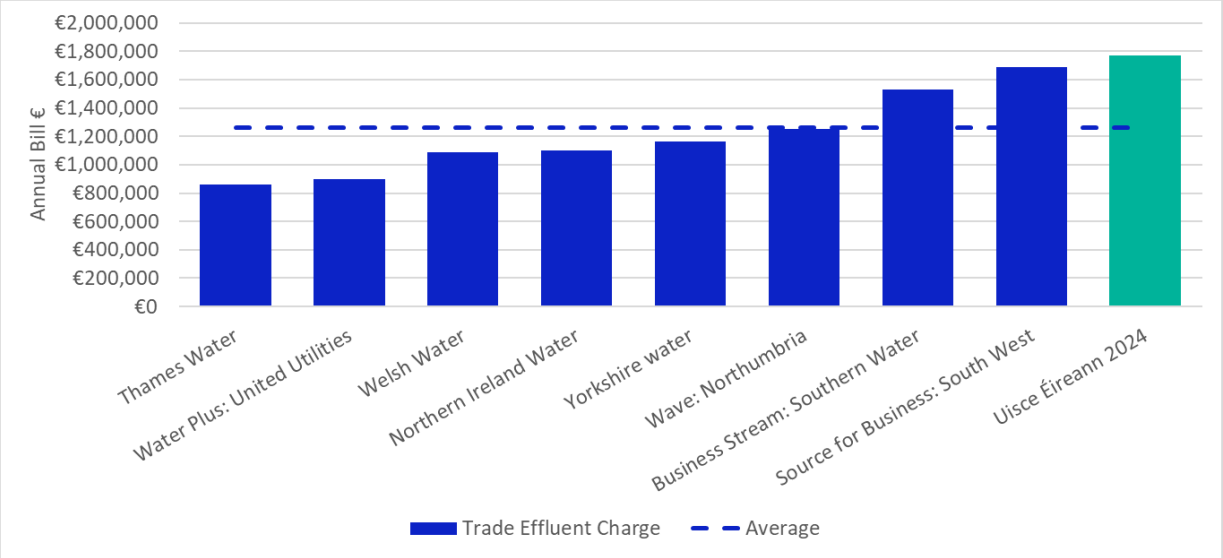
Figure 8.18 Annual Charge for TEC Code 8.1



Comparison of the charging variables faced by trade effluent customers in TEC Code 9.1 (primary food production and preparation) sector

This section compares the annual, indicative charges faced by a typical trade effluent customer categorised into TEC Code 9.1. With an annual quantity of 587,111m^3, the UÉ Trade Effluent Category 3 tariffs apply. The annual average measure of COD is 953 mg/l and the annual average measure of SS is 85mg/l. Figure 8.19 illustrates UÉ's indicative annual charge inclusive of Mogden formula charge, standing charge and compliance and licensing charge relative to the charges that apply in other regions.

Figure 8.19 Annual Charge for TEC Code 9.1



8.3 Sources for international comparison analysis, caveats, and assumptions

Sources

Table 8.1 below provides a list and links to the published schedule or scheme of tariffs for each Region used in the international comparative analysis. The annual charges for each region included in figures 8.1 to 8.18 are based on the tariff rates in the schedule or scheme of tariffs.

Table 8.1 Reference Sources

Region	Link
Auckland, NZ	Auckland (Water Care) JUL 2023
Bristol Water	Bristol Water (Water 2 Business) 2024/2025
Brussels	VIVAQUA Non Domestic
Calgary, Canada	Calgary 2024
Clear Business	Clear Business 2024/25
Cologne, Germany	Cologne, Germany Water 2024
Cologne, Germany	Cologne, Germany Wastewater 2024
Copenhagen, Denmark	Copenhagen, Denmark 2024
Geneva, Switzerland	**Geneva, Switzerland (SIG)**
Krakow, Poland	**Krakow, Poland 2023**
Lisbon, Portugal	Lisbon, Portugal (EPAL) Wastewater 2024
Lisbon, Portugal	**Lisbon, Portugal (EPAL) Water 2023**
Northern Ireland Water	NI Water 2024-25
Northumbria	Northumbrian Water (Wave) 2024/25
Paris, France	Paris Water 2024/25
Scottish Water	Business Stream (Scottish Water) 2024/25
Singapore	Singapore 2024
Southern Water	Southern Water (Business Stream) 2024/25
South Staffs	South Staffs Water (Source for Business) 2024/25
South West	South West Water (Source for Business) 2024/25
Sydney Water	Sydney 2020-24
Tallin, Estonia	Tallinn and Saue 2023-24
Thames Water	Thames Water (Castle Water) 2024/25
Water plus (United Utilities)	United-utilities (water-plus) 2024/25
Welsh Water	Welsh Water 2024/25
Yorkshire Water	Charging scheme for Yorkshire Water wholesale region 2024/25

Caveats, Assumptions and Regional Differences

It is important to note that tariff design for non-domestic customers differs from region to region.

These differences are reflected in UÉ's international comparison analysis and the most notable are acknowledged below.

- The comparison in section 8.1 is based on the total, annual bill faced by non-domestic customers in each region. The comparison in section 8.2 is based on the wastewater bill faced by trade effluent customers in each region.
- Tariff structure varies across the regions included in the international comparison analysis. Some regions apply a uniform volumetric rate while others apply a falling

block volumetric rate structure. Differences in rate structure are reflected in the analysis.

- A non-return to sewer adjustment is a common feature in international regions where wastewater costs are allocated to wastewater customers in accordance with the percentage of water delivered to them. The international analysis correctly reflects any region which applies this adjustment by applying a volumetric unit rate to the volume of water delivered less a non-return to sewer allowance (usually 5% or 10%) for any volume not discharged to the sewer.
- Similar to UÉ, customers in other regions are classified in groups by reference to the annual volume of water consumed. Different standing charges, volumetric unit charges or both are applied to different groups of customers.
- Customers are classified by reference to their pipe size or meter size in some international regions. UÉ has applied consistent assumptions regarding the meter size or pipe size in its comparison at different levels of annual consumption aligned with a measure of water which could be expected to be consumed.
- 2024 tariff rates are used throughout the analysis. In certain cases (e.g. Geneva) the charging scheme was published before 2024 but the tariff rates remained relevant at the time of UÉ's analysis. 2024/25 charging rates were used for the UK regions.
- Regions included in this analysis which are outside of the Euro area have their rates converted to EUR at average conversion rate for 2023.
- Factors such as demographics, costs and regulatory models which impact on tariff design and levels differ from location to location.
- Portugal's wastewater charges are based on urban wastewater management tariffs and sewage tariffs. It is assumed that these services combine to form the equivalent of UÉ's wastewater services.
- It is assumed for all regions that the sum of water services and wastewater services results in a combined services charge.
- Only relevant standing and volumetric charges are considered in the analysis. Other charges (or rebates) such as connection charges, leakage discounts, fire hydrant charges, recycled water allowance, or any other special pricing which can be applied in other regions are ignored for the purposes of the international comparison analysis.
- Potable water charges are only considered in the international comparison analysis. Non-potable water charges (where relevant) are not included in the analysis.
- Value added tax (VAT) does not apply to UÉ water service tariffs but it or other taxes may be a component of other utilities tariff structures, for example in Geneva a federal tax applies to wastewater tariffs.

- It is worth noting that in some jurisdictions surface water or highway drainage is charged in addition to the wastewater charges.

- In section 8.2.1 where a Mogden formula applies, it is populated with the average wastewater strengths values: both the Os parameter value and the Ss parameter value applicable for that regional. The same national average wastewater strengths values: Os parameter value and the Ss parameter value are used to populate the Ot parameter value and the St parameter value in the Mogden formula.

Appendix 1 – the cost allocation methodology

A. UÉ's Allowed Revenues for the period 2020-2024

Functionalised costs are allocated to water supply and wastewater services, and customer groups, in accordance with the approved revenue control process. The CRU's decision on allowed revenues for RC3 (2020-2024), and specifically allowed revenues for 2024, is used to determine the proportion of total costs allocated to each service and activity for the 2024/25 tariff year.

A1.1 Split of Allowed Revenue between Opex and Capex

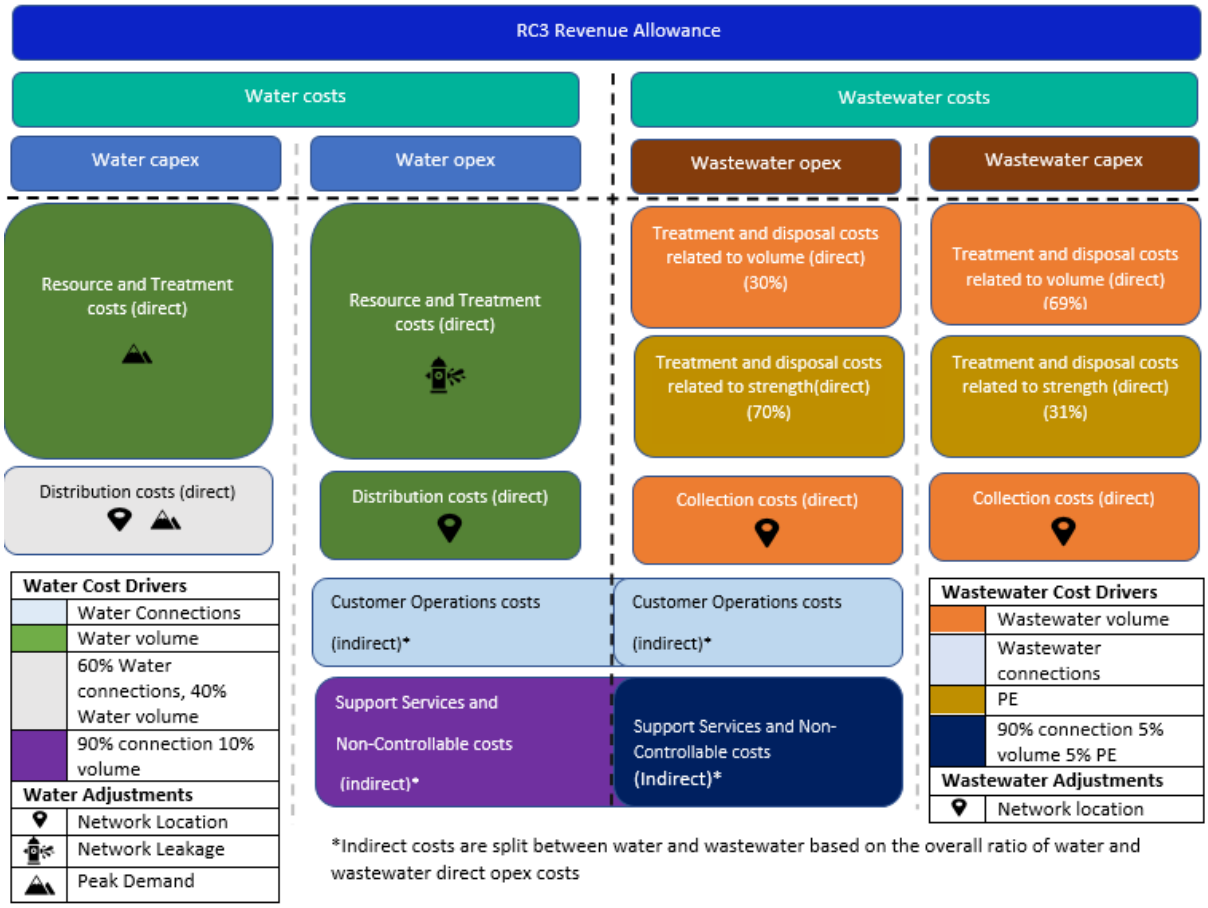
Table A1.1 Split of RC3 Allowed Revenue between Opex and Capex (2019[29] vs 2024)

Allowed Revenue component	Percentage of total Allowed Revenue	
	2019	RC3 (2024)
Operational expenditure	66%	58%
Depreciation & Return on Assets (Capital Expenditure)	34%	42%
Total	**100%**	**100%**

Depreciation and return on assets are part of the regulatory framework model and relate to the Capital expenditure component of the revenue control. Figure A1.1 below provides a graphical summary of the approach when allocating opex and capex costs to customer groups including the cost drivers and adjustments which may apply. For further information please see the CRU's decision on UÉ's Revenue Control (2020-2024)[30].

[29] Current tariffs (i.e., those that apply until 30th September) are calculated using the 2019 allowed revenues. The 2019 split of operational and capital expenditure is shown here for comparative purposes.
[30] See the CRU's 2019 RC3 decision (here). Please see the CRU's 2023 decision on the RC3 interim review (here).

Figure A3.1 Allocating costs to customer groups[31]



Note water and wastewater adjustments refer to adjustments made to the allocation of costs to different customer groups to reflect gaps in data which restrict the extent to which a best practice FAC cost allocation approach can be implemented.

Cost Component 1 – Opex

The following are all the categories of opex costs were determined by the revenue control 3 (2020-2024). These costs are allocated to customer groups for revenue recovery as part of UÉ's Cost Allocation analysis:

1) ***Operations and Maintenance*** relates to water and wastewater operations and maintenance activities delivered by UÉ. UÉ's cost accounting systems have allocated operations and maintenance costs to individual water and wastewater activities or services.

   Water supply operations and maintenance costs are allocated to customer groups in accordance with consumption or share of water delivered. A network location adjustment is applied to the proportion of water supply operation and maintenance

[31] Customer operation costs associated with wastewater source control and licensing and the management of trade effluent, including monitoring and sampling programme costs are not represented in this graphic but are directly allocated for recovery from trade effluent customers – see below.

costs attributed to Water Distribution. A network leakage adjustment is applied to the proportion of operation and maintenance costs attributed to resource and treatment.

Wastewater operations and maintenance treatment and disposal costs are allocated to customer groups with a 30% wastewater volume and 70% PE blended split representing a combination of the treatment and disposal opex costs driven by wastewater volume and wastewater strength component respectively.

Wastewater collection costs are allocated to customer groups in accordance with their share of wastewater volume. Costs associated with the trade effluent sampling programme are directly allocated for recovery from trade effluent customers. A network location adjustment is applied to the proportion of wastewater operation and maintenance costs attributed to collection.

2) UÉ's ***Work and Asset Management*** function is responsible for the delivery and management of work orders and operational instructions to maintain safe, responsive, reliable, and sustainable water and wastewater services. UÉ's cost accounting systems have allocated work and asset management costs to individual water and wastewater activities and services.

Water supply work and asset management costs are allocated to customer groups in accordance with consumption or share of water delivered. A network location adjustment is applied to the proportion of water supply work and asset management costs attributed to Water Distribution. A network leakage adjustment is applied to the proportion of work and asset management costs attributed to resource and treatment.

Wastewater work and asset management treatment and disposal costs are allocated to customer groups with a 30% wastewater volume and 70% PE blended split representing a combination of the treatment and disposal opex costs driven by wastewater volume and wastewater strength components respectively.

Collection costs are allocated to customer groups in accordance with their share of wastewater volume. Costs associated with the trade effluent sampling programme are directly allocated for recovery from trade effluent customers. A network location adjustment is applied to the proportion of wastewater work and asset management costs attributed to collection.

3) The ***Customer Operations*** function can be allocated for recovery from particular customer groups as different groups of customers drive different components of the function's costs. KAM costs are directly allocated for recovery from the Band 3, 4 and 5 water and wastewater customer classes (serving those customers with annual consumption greater than 20,000m^3). Similarly, costs associated with wastewater source control and licensing and the management of trade effluent, including monitoring and sampling programme costs, are directly allocated for recovery from trade effluent customers. Consistent with the CRU's Decision, Activity Based Costing

(ABC)[32] is used to allocate compliance and licencing costs to individual trade effluent customer classes. Monitoring and sampling programme costs are allocated to trade effluent customers based on the number of samples that UÉ determines will be carried out annually for each customer class. The remaining Customer Operations are allocated to services and customer groups in accordance with number of connections.

4) ***Support Services Costs*** include Finance, Commercial and Procurement, Regulation, IT, Legal, HR, Business Change, Health, Safety, Quality and Environment (HSQE), Marketing, Secretariat and Corporate Services. These areas support core activities of the UÉ business and are indirect costs. They cannot be readily split between water and wastewater services. Support service costs are allocated to water and wastewater services based on the split of direct opex to each service. Costs are allocated to water service products and customer groups using:

    - 90% connections and 10% consumption blended split to water supply services and customer groups; and
    - 90% connections, 5% consumption and 5% PE blended split for wastewater services and customer groups,

    representing a combination of the cost driver methodologies used to allocate core activities.

5) ***Non-Controllable costs***, such as CRU levy and EPA licence fees, are identified as pass-through costs incurred in carrying out core activities of UÉ. These are indirect costs and cannot be readily split between water supply and wastewater services. Non-controllable costs are allocated to water supply and wastewater services based on the ratio of direct opex spent on each service. Costs are allocated to water service products and customer groups using:

    - 90% connection and 10% consumption blended split to water supply services and customer groups; and
    - 90% connections, 5% consumption and 5% PE blended split for wastewater services and customer groups,

    representing a combination of the cost driver methodologies used to allocate core activities.

Cost Component 2 – Capex

Depreciation and return on assets are part of the regulatory framework model and relate to capital expenditure. The following categories of capex costs were determined by the revenue control 3 (2020-2024) and are allocated to customer groups for revenue recovery as part of UÉ's Cost Allocation analysis:

[32] Please see section B.1.4 of this appendix for more information on the ABC exercise carried out.

1) **Projects** refers to the delivery of infrastructure which is targeted to achieve quality, enhanced level of service or supply/demand balance objective under UÉ's capital investment programme.

Water supply:

Water projects are targeted at water supply assets to achieve a quality, enhanced level of service or supply/demand balance objective. UÉ's capital investment programme distinguishes between investment in resource and treatment and investment in distribution assets. UÉ has allocated these costs to the water supply service product. Resource and treatment costs are allocated to customer groups in accordance with consumption or share of water delivered. A peak demand adjustment is applied to the proportion of water project costs attributed to resource and treatment.

Water Distribution costs are allocated to customer groups with 60% connections and 40% consumption blended split. A network location adjustment is applied to the proportion of water project costs attributed to distribution capex and allocated by the connection cost driver. A peak demand adjustment is applied to the proportion of water project costs attributed to distribution capex and allocated to customer groups in accordance with consumption or share of water delivered.

Wastewater:

Wastewater Projects are targeted at wastewater assets to achieve quality, enhanced level of service or supply/demand balance objective. UÉ's capital investment programme distinguishes between investment in treatment and disposal assets and collection assets. UÉ has allocated these costs to the wastewater service product as follows. Treatment and disposal costs are allocated to customer groups with a 69% wastewater volume and 31% PE blended split representing a combination of the treatment and disposal capex costs driven by wastewater volume or flow and wastewater strength components respectively.

Collection costs are allocated to customer groups in accordance with their share of wastewater volume. A network location adjustment is applied to the proportion of wastewater project costs attributed to wastewater collection.

2) ***Capital Maintenance*** is focused on replacement or refurbishment of water supply and wastewater assets. UÉ's capital maintenance programme distinguishes between spend on water supply resource and treatment assets and water supply distribution assets; and wastewater treatment and disposal assets and wastewater collection assets. UÉ has allocated capital maintenance costs to the water supply and wastewater service products as follows.

Water supply:

Water supply resource and treatment costs are allocated in accordance with consumption or share of water delivered. A peak demand adjustment is applied to the proportion of water project costs attributed to water supply resource and treatment.

Water Distribution costs are allocated to customer groups with 60% connections and 40% consumption blended split. A network location adjustment is applied to the proportion of water project costs attributed to distribution capex and allocated by the connection cost driver. A peak demand adjustment is applied to the proportion of water project costs attributed to distribution capex and allocated to customer groups in accordance with consumption or share of water delivered.

Wastewater:

Wastewater treatment and disposal costs are allocated to customer groups with a 69% wastewater volume and 31% PE blended split representing a combination of the treatment and disposal capex costs driven by wastewater volume or flow and wastewater strength components respectively.

Wastewater collection costs are allocated to customer groups in accordance with their share of wastewater volume. A network location adjustment is applied to the proportion of wastewater project costs attributed to wastewater collection.

3) ***National Programmes*** refers to water and wastewater programmes to bring asset performance to acceptable levels of compliance and capacity at a national level e.g., Disinfection Programme, Impounding Reservoirs Programme etc. UÉ's national programme distinguishes between spend on water supply resource and treatment assets and water supply distribution assets; and wastewater treatment and disposal assets and wastewater collection assets. National programme costs are allocated to the water supply and wastewater service products as follows.

Water supply:

Water supply resource and treatment costs are allocated in accordance with consumption or share of water delivered. A peak demand adjustment is applied to the proportion of water project costs attributed to water supply resource and treatment.

Water Distribution costs are allocated to customer groups with 60% connections and 40% consumption blended split. A network location adjustment is applied to the proportion of water project costs attributed to distribution capex and allocated by the connection cost driver. A peak demand adjustment is applied to the proportion of water project costs attributed to distribution capex and allocated to customer groups in accordance with consumption or share of water delivered.

Wastewater:

Wastewater treatment and disposal costs are allocated to customer groups with a 69% wastewater volume and 31% PE blended split representing a combination of the treatment and disposal capex costs driven by wastewater volume or flow and wastewater strength components respectively.

Wastewater collection costs are allocated to customer groups in accordance with their share of wastewater volume. A network location adjustment is applied to the proportion of wastewater project costs attributed to wastewater collection.

The cost driver and adjustments applied to each cost are summarised below. Summary table A1.2 presents the allocation of opex (related to both the provision of water supply and wastewater services) to be recovered from water supply and wastewater tariffs. Summary table A1.3 presents the allocation of capex (related to both the provision of water supply and wastewater services) to be recovered from water supply and wastewater tariffs. The tables summarise the mix of cost drivers and adjustments used to allocate opex and capex water supply and wastewater service costs to customer groups.

Table A1.2 Summary of Opex Cost Drivers & Adjustments – Water Supply and Wastewater Service

Allocation of Operational Costs						
No.	**Opex Category**	**Proportion of total opex**	**Cost Driver Allocation approach**		**Adjustments**	
			Water Supply	**Wastewater**	**Water Supply**	**Wastewater**
1	Operations & Maintenance	78%	Consumption	**Treatment and disposal costs**: 30% wastewater volume & 70% PE **Collection cost:** wastewater volume	Network Location* & Leakage**	Network Location***
2	Work and Asset Management	12%	Consumption	**Treatment and disposal costs**: 30% wastewater volume & 70% PE **Collection cost: wastewater volume**	Network Location* & Leakage**	Network Location***
3	Customer Operations	3.2%	Connections		N/A	
4	TE Compliance and Licence Management	0.5%	N/A	Activity based costing	N/A	
5	Trade Effluent sampling	0.0%	N/A	Number of samples	N/A	
6	Support Services	13%	10% Consumption 90% Connections	5% Consumption, 5% PE & 90% Connections	N/A	

7	Non-controllable & Innovation Fund[33] costs	4%	10% Consumption 90% Connections	5% Consumption, 5% PE & 90% Connections	N/A

Note: For cost allocation analysis purposes, UÉ's opex costs (Operations and Maintenance and Work and Asset Management) are categorised by 'Water Supply – R&T', 'Water Supply – Distribution', 'Wastewater - Treatment and Disposal' and 'Wastewater – Collection'.

*Applied to the Water Distribution related costs within this cost category. **applied to the resource and treatment related costs within this cost category.

***applied to the wastewater collection related costs within this cost category.

Table A1.3 Summary of Capex Cost Drivers & Adjustments – Water Supply and Wastewater Service

Allocation of Capital Costs				
No.	**Cost Category**	**Proportion of total capex**	**Cost Driver Allocation approach**	**Adjustments**
1	Water Supply – Resource & Treatment (R&T)	27%	Consumption	Peak Demand
2	Water Supply – Distribution	26%	60% Connections & 40% Volume	Network Location on the proportion allocated by connection. Peak demand on the proportion allocated by volume
3	Wastewater - Treatment and Disposal	29%	69% Consumption & 31% PE	N/A
4	Wastewater – Collection	18%	Consumption	Network Location

[33] The purpose of this allowance (innovation fund) is to allow UÉ to promote new technologies and improved ways of delivering water and wastewater service for customers within an incentive base regime where cost efficiency is the focus. For UÉ to draw down its innovation fund allowance it must first receive approval from the CRU for individual innovation projects.

Note: For cost allocation analysis purposes, UÉ's capex costs (Water Projects, Wastewater Projects, Capital Maintenance and National Programmes) are categorised by 'Water Supply – R&T', 'Water Supply – Distribution', 'Wastewater - Treatment and Disposal' and 'Wastewater – Collection'.

A1.2 Cost Allocation between water and wastewater services

Table A1.4 sets out the percentage allocation of total UÉ opex and capex attributable to water supply and wastewater services. It also provides the blended allocation of costs between water supply and wastewater services based upon the proportion of total allowed revenue attributable to opex and capex respectively.

Table A1.4 Opex and capex allocation – water and wastewater

Opex and capex – water and wastewater services % allocation		
Cost category	**Water Supply %**	**Wastewater services %**
Opex	49%	51%
Capex	59%	41%
Blended	**53%**[34]	**47%**[35]

B. Water Services Cost Drivers

B1.1 Share of water delivered

As set out in part A, allocation of a large portion of direct opex and capex related costs to customer groups is on the basis of share of water delivered. Tables A1.5 and A1.6 sets out each customer class's share of water delivered for water supply and wastewater connections respectively. In both tables the volume of water delivered associated with the DA for mixed use customers has been reallocated from the non-domestic to the domestic sector. This reallocation impacts Band 1 customers disproportionately to the other customer classifications as the majority of DAs (94%) are in this customer classification.

[34] Represented by equation (49%*58%) +(59%*42%). 49% of the opex spend and 59% of the capex spend is on the provision of water supply. 58% of our allowed revenue is opex related and 42% is capex related.
[35] Represented by equation (51%*58%) +(41%*42%). 51% of the opex spend and 41% of the capex spend is on the provision of wastewater services. 58% of the allowed revenue is opex related and 42% is capex related.

Table A1.5 2021 customer share of water delivered to water supply connections

Customer Class		Volume of water delivered ML per day	% share of water delivered
Domestic		620	69%
Non-Domestic		**275**	**31%**
Band 1	<1,000m^3	50	6%
Band 2	1,000 – 19,999m^3	84	9%
Band 3	20,000 – 249,999m^3	67	7%
Band 4	250,000m^3 - 2,299,999m^3	38	4%
Band 5	>/= 2,300,000m^3	34	4%
Unmetered 1		2	0.22%
Unmetered 2		0	0.001%
Total consumption	**ML = Megalitre (1,000m^3)**	**895**	**100.00%**

Table A1.6 2021 customer share of water delivered to wastewater connections

Customer Class		Volume of water delivered ML per day	% share of water delivered
Domestic		531	75%
Non-Domestic		**177**	**25%**[36]
Band 1	<1,000m^3	21	2.9%
Band 2	1,000 – 19,999m^3	44	6.2%
Band 3	20,000 – 249,999m^3	27	3.8%
Band 4	>250,000m^3	3	0.4%
Unmetered 1		2	0.28%
Unmetered 2		0	0.00%
Trade Effluent Licence		**80**	**11.3%**
Category 1		19	3%
Category 2		23	3%
Category 3		38	5%
Total consumption	**ML = Megalitre (1,000m^3)**	**708**	**100.00%**

B1.2 Relative share of connections

As set out in part A, the following costs are allocated to customer groups on the basis of relative share of connections; operational expenditure associated with the Customer Operations function; 90% of operational expenditure on support services and non-controllable costs; and 60% capital expenditure on the water supply distribution network. Tables A1.7 and A1.8 sets out each customer class's share of water supply and wastewater connections respectively.

[36] Non-domestic wastewater volumes are reflective of any existing water in is not equal to water our arrangements. In addition, UÉ has included an assumption that water in is not equal to water out for Trade effluent volumes where it is expected that customers undertaking certain activities will apply for a water in is not equal to water out arrangement.

Table A1.7 2021 customer share of water supply connections

Customer Class		Connections to the public water main	
		Approx. number of connections	**Proportion of total connections**
Domestic		1,614,524	89.56%
Non-Domestic		**188,117**	**10.44%**
Band 1	<1,000m^3	168,760	9.36%
Band 2	1,000 – 20,000m^3	10,713	0.59%
Band 3	20,000 – 249,999m^3	433	0.02%
Band 4	250,000m^3 – 2,299,299m^3	25	0.01%
Band 5	>2,300,000m^3	3	0.00%
Unmetered 1		8,154	0.45%
Unmetered 2		29	0.01%
Total		**1,802,641**	**100.00%**

Table A1.8 2021 customer shares in wastewater connections

Customer Class		Connections to the public sewer	
		Approx. number of connections	Proportion of total connections
Domestic		1,415,737	93.51%
Non-Domestic		**98,281**	**6.49%**
Band 1	<1,000m^3	79,131	5.23%
Band 2	1,000 – 20,000m^3	5,204	0.34%
Band 3	20,000 – 249,999m^3	202	0.01%
Band 4	>250,000m^3	2	0.000%
Unmetered 1		6,845	0.45%
Unmetered 2		29	0.01%
Trade Effluent		**6,868**	**0.45%**
Category 1		6,382	0.42%
Category 2		471	0.03%
Category 3		15	0.001%
Total		**1,514,018**	**100.00%**

B1.3 Relative share of PE

As set out in part A, the following wastewater treatment costs are allocated to customer groups on the basis of a relative share of PE cost driver; 70% of operational expenditure associated with wastewater treatment and disposal; 31% of capital expenditure on wastewater treatment and disposal costs and 5% of operational expenditure on support services and non-controllable costs. Table A1.9 sets out each customer class's share of PE discharged.

Table A1.9 2021 customer shares in PE wastewater strength

Customer Class		PE	% share of PE
Domestic		3,644,874	72.42%
Non-Domestic		**1,388,263**	**27.58%**
Band 1	<1,000m^3	148,993	2.96%
Band 2	1,000 – 20,000m^3	307,207	6.10%
Band 3	20,000 – 249,999m^3	187,006	3.72%
Band 4	>250,000m^3	23,745	0.47%
Unmetered 1		13,779	0.27%
Unmetered 2		556	0.01%
Trade Effluent Licence		**706,977**	**14.05%**
Category 1		127,071	2.53%
Category 2		282,824	5.62%
Category 3		297,082	5.90%
Total PE		**5,033,137**	**100.00%**

B1.4 Activity based costing – trade effluent compliance and licencing costs

As set out in part A, compliance and licencing costs are allocated to trade effluent customer groups on the basis of an ABC exercise. The ABC exercise allocates compliance and licensing indirect costs based on the time and effort spent on these activities as indicated by UÉ's Wastewater Source Control and Licensing (WWSCL) team. Table A1.10 sets out the expected efforted required to undertake compliance and licencing costs for each trade effluent customer class.

Table A1.10 Output of ABC analysis and allocation of compliance and licensing costs to Trade Effluent Category 1, 2 and 3 customers

TE functional Activity	A. Effort per function	B. Split of functional effort by Tariff Category				C. (A*B)		
		Category 1	Category 2	Category 3	Total	Category 1	Category 2	Category 3
Compliance Management	85%	5%	90%	5%	**100%**	*4.3%*	*76.9%*	*4.3%*
Licence Management	15%	5%	90%	5%	**100%**	*0.7%*	*13.1%*	*0.7%*
Total	**100%**					**100%**		

Notes:

1. UÉ's WWSCL team undertakes two primary functional activities; management of trade effluent licences and monitoring trade effluent customer compliance with the terms of the trade effluent licence. Column A represents the time the team spends on each functional activity.
2. Column B represents the time and effort WWSCL spends on each functional activity broken down by tariff category.
3. Column (A*B) is used to allocate the indirect costs of trade effluent compliance and licensing management functional activities to UÉ's trade effluent customer classes based on the time and effort expended by UÉ's WWSCL team.

B1.5 Trade Effluent customer share of sampling

As set out in part A, monitoring and sampling programme costs are allocated based on the number of samples that UÉ determines will be carried out annually for each customer class. Table A1.11 sets out the number of samples taken for each trade effluent customer class.

Table A1.11 Allocation of monitoring and sampling costs to Trade Effluent Category 1, 2 and 3 customers

Trade effluent Customer Class	Estimate number of customers	Estimate no of samples per class	% allocation of sampling costs	Average no of samples per customer per annum
Category 1	6,382[37]	1,544	31%	0.2[38]
Category 2	471	3,372	66%	7.1
Category 3	15	144	3%	9.6
Total	**6,868**	**5,060**	**100%**	

C. Distribution of costs to customer groups

Costs identified in Section A are allocated directly to customers where applicable. Where costs identified are indirectly applicable, they have been applied to customer classes in accordance with the cost drivers identified in Section B.

UÉ is continuing to adopt the approach set out in the CRU's 2019 Framework decision to allocate costs to customer groups. Section C outlines all the cost driver uncertainties and how these are accounted or adjusted for the cost allocation analysis:

i. *Adjusting the relative output share of volume cost driver used to allocate distribution opex and the relative output share of connections cost driver partially used to allocate distribution capex to reflect average network location for each customer group;*
ii. *Adjusting the share of volume cost driver used to allocate water resource and treatment capex and 40% of distribution capex to reflect peak demand for each customer group;*

[37] Includes Trade Effluent Category 1 metered and unmetered customers.
[38] UÉ intends sampling a representative cross section of Trade Effluent Category 1 customers across a geographical range of Commercial Activities and Industrial Activities and consumption values.

iii. *Adjusting the relative output share of volume cost driver used to allocate resource and treatment opex to reflect network leakage for each customer group; and*

iv. *Adjusting the cost driver used to allocate wastewater collection opex and capex to reflect network location for each customer group.*

C.1.1 Cost Driver adjustments

This section sets out the adjustments applied to each cost driver for each uncertainty (i, ii, iii and iv) above.

i. *Adjusting the relative output share of volume cost driver used to allocate distribution opex and the relative output share of connections cost driver partially used to allocate distribution capex to reflect average network location for each customer group*

Distribution opex is allocated by relative output share of volume adjusted by the assumed effect of network location for customer group, Tariff Band 3, 4 and 5 as follows:

- A 5% (Band 3 customer classification), a 30% (Band 4 customer classification) and a 50% (Band 5 customer classification) adjustment to reduce the distribution opex allocated by relative output share.

Distribution capex is partially (60%) allocated by relative output share of connections adjusted by the assumed effect of network location for customer group, Tariff Band 3, 4 and 5 as follows:

- A 5% (Band 3 customer classification), a 30% (Band 4 customer classification) and a 50% (Band 5 customer classification) adjustment to reduce the distribution capex allocated by relative share of connections.

ii. *Adjusting the share of volume cost driver used to allocate water resource and treatment capex and 40% of distribution capex to reflect peak demand for each customer group*

Resource and treatment capex is allocated by relative output share of volume adjusted by the assumed effect of peak demand for each customer group, Tariff Band 1 - 5 as follows:

- A 10% (Band 1 customer classification), a 15% (Band 2 customer classification), a 20% (Band 3 customer classification), a 20% (Band 4 customer classification) and a 20% (Band 5 customer classification) adjustment to reduce the resource and treatment capex allocated by relative output share.

Distribution capex is partially (40%) allocated by relative output share of volume adjusted by the assumed effect of peak demand for customer group, Tariff Band 1 - 5 as follows:

- A 10% (Band 1 customer classification), a 15% (Band 2 customer classification), a 20% (Band 3 customer classification), a 20% (Band 4 customer classification) and a 20% (Band 5 customer classification) adjustment to reduce the distribution capex allocated by relative output share.

iii. Adjusting the relative output share of volume cost driver used to allocate resource and treatment opex to reflect network leakage for each customer group.

Resource and treatment opex is allocated by relative output share of volume adjusted by the assumed effect of network leakage of each customer group, Tariff Band 2 - 5 as follows:

- A 5% (Band 2 customer classification), a 10% (Band 3 customer classification), a 20% (Band 4 customer classification) and a 20% (Band 5 customer classification) adjustment to reduce the resource and treatment opex allocated by relative output share.

iv. Adjusting the cost driver used to allocate wastewater collection opex and capex to reflect network location for each customer group.

Wastewater collection opex and capex are allocated by relative output share adjusted by the assumed effect of network location for customer group, Tariff Band 4. The network location adjustment equally applies to non-domestic and trade effluent[39] connections alike.

- A 10% (Band 4 customer classification) adjustment to reduce the collection opex and capex allocated by relative output share.

D. Non-domestic and trade effluent cost allocation

The CRU's Decision allocates UÉ's costs identified in Section A of this appendix directly to customers where applicable. Where costs identified are indirectly applicable, they have been applied to customer classes in accordance with the cost drivers identified in Section B.

Table A1.12 summarises the assessment of the balance of cost allocation between the domestic and non-domestic customer groups.

Table A1.12 The balance between domestic and non-domestic costs

Cost Allocation	Customer Group	
	Domestic % share	Non-domestic % share
Share of total allocated costs	76.01%	23.99%

The balance of cost allocation within the non-domestic customer group for each service is set out below in table A1.13.

[39] The adjustment applies to Trade Effluent connections in the same manner as non-domestic, having regard to the volumes of wastewater that trade effluent is discharging and how they would otherwise be categorised if not licenced.

Table A1.13 Non-Domestic % cost allocation by water service to customer groups

Category	Service				Overall
	Water Supply	Wastewater	TE	Other	Total
Total non-domestic	12.00%	5.92%	5.22%	0.84%	23.99%

D1. Summary of cost allocation approach

The following below tables A1.14 and A1.15 summarises sections A, B, C and D of this appendix which address UÉ's costs, cost drivers, and cost driver adjustments and adjustments values that are used to allocate costs to each customer group. For reference the tables record the change from the CRU's 2019 decision for water supply and wastewater services respectively. Changes are marked in red text.

Table A1.14 Cost allocation (water supply)

Cost Category	2019 Framework Decision		2024 Framework Decision	
Design Element 3: Cost Allocation (water supply)				
Cost	**Current Cost Driver**	**Current Adjustment(s)**	**Cost Driver**	**Adjustment(s)**
Water Supply (Opex)				
O & M and Work and Asset Management	100% Consumption	Network Location[1]: Band 1: 0%, Band 2: 0%, Band 3: 10%, Band 4: 30%. Leakage[2]: Band 1: 0%, Band 2:5%, Band 3: 10%, Band 4: 20%.	100% Consumption	Network Location[1]: Band 1: 0%, Band 2: 0%, Band 3: 5%, Band 4: 30%. Band 5: 50%. Leakage[2]: Band 1: 0%, Band 2:5%, Band 3: 10%, Band 4: 20%, Band 5: 20%.
Customer Operations	100% Connections	No adjustment	100% Connections	No adjustment
Support Services	10% Consumption & 90% Connections	No adjustment	10% Consumption & 90% Connections	No adjustment
Non-controllable & innovation costs	10% Consumption & 90% Connections	No adjustment	10% Consumption & 90% Connections	No adjustment
Water Supply (Capex)				
Distribution	100% Connections	Network Location: Band 1: 0%, Band 2: 0%, Band 3: 10%, Band 4: 30%.	60% Connections: 40% Consumption	Network Location[3]: Band 1: 0%, Band 2: 0%, Band 3: 5%, Band 4: 30%. Band 5: 50%. Peak Demand[4]: Band 1: 10%, Band 2: 15%, Bands 3&4: 20%., Band 5: 20%.
Resource & Treatment	100% Consumption	Peak Demand: Band 1: 10%, Band 2: 15%, Bands 3& 4: 20%.	100% Consumption	Peak Demand: Band 1: 10%, Band 2: 15%, Bands 3&4: 20%., Band 5: 20%.

Notes:

1. The Network Location adjustment applies to Distribution related Operations & Maintenance and Work and Asset Management costs.

2. The Leakage adjustment applies to Resource & Treatment related Operations & Maintenance and Work and Asset Management costs.

3. The Network Location adjustment applies to Distribution capex costs allocated by connections

4. The Peak Demand adjustment applies to Distribution capex costs allocated by consumption

Table A1.4 Cost Allocation (wastewater)

Cost Category	2019 Framework Decision		2024 Framework Decision	
Design Element 3: Cost Allocation (wastewater)				
	Current cost driver	**Current Adjustment(s)**	**Cost Driver**	**Adjustment(s)**
Wastewater (Opex)				
O & M (collection)	100% Consumption	Network Location: Band 1: 0%, Band 2: 0%, Band 3: 0%, Band 4: 10%.	100% Consumption	Network Location: Band 1: 0%, Band 2: 0%, Band 3: 0%, Band 4: 10%.
Work and Asset Management (collection)				
O & M (Treatment and Disposal)	100% Consumption	No adjustment	30% Consumption & 70% PE	No adjustment
Work and Asset Management (Treatment and Disposal)				
Customer Operations	100% Connections	No adjustment	100% Connections	No adjustment
TE Compliance and licencing Costs	N/A	N/A	Activity based costing	No Adjustment
TE Sampling and Monitoring costs	N/A	N/A	Samples	No Adjustment
Support Services	10% Consumption & 90% Connections	No adjustment	5% Consumption, 5% PE & 90% Connections	No adjustment
Non-controllable & innovation costs	10% Consumption & 90% Connections	No adjustment	5% Consumption, 5% PE & 90% Connections	No adjustment
Wastewater (Capex)				
Collection	100% Consumption	Network Location: Band 1: 0%, Band 2: 0%, Band 3: 0%, Band 4: 10%.	100% Consumption	Network Location: Band 1: 0%, Band 2: 0%, Band 3: 0%, Band 4: 10%.
Resource & Treatment	100% Consumption	No adjustment	69% Consumption & 31% PE	No adjustment

Appendix 2 – the Mogden formula

The CRU's decision provides for a single Mogden formula[40] to be charged to customers in Trade Effluent Category 2 and 3 incorporating variable operating charges with a uniform rate per unit charge component. The inclusion of strength-based components to trade effluent charges will be a new type of charge for many customers for many customers carrying out Industrial Activities.

The Mogden formula provides a clear signal to customers to assess their trade effluent impact and reduce it where possible. This best incentivises efficiency in the use of wastewater services. It also performs strongly on cost reflectivity and tariff stability principles as the single Mogden formula is the most common arrangement where a strength component to the trade effluent charge currently exists.

The Mogden formula requires representative sampling (effluent sampling capturing the typical trade effluent discharged from the premises) and analysis of the trade effluent to derive the inputs to calculate the charge. UÉ's Mogden formula is structured as follows:

$$\text{Unit Charge} = R + V + \left(\frac{Ot}{Os} \times B\right) + \left(\frac{St}{Ss} \times S\right)$$

Where:

[40] A Mogden formula calculates the charges to collect, treat and dispose of trade effluent. Various components of treatment, for example Volume, Chemical Oxygen Demand (COD) or Biochemical Oxygen Demand (BOD), and Suspended Solids (SS) are separate inputs to the formula.

Table A2.1 Mogden formula components

Component	Description	Unit
R	A fixed charge per cubic metre for reception and conveyance costs	m^3
V	A fixed charge per cubic metre for volumetric and primary or preliminary treatment costs,	m^3
Ot	The Chemical Oxygen Demand (COD) of the customer's settled trade effluent	mg/l
Os	The average national figure for COD of settled wastewater as determined by UÉ across all its wastewater treatment plants	mg/l
B	The biological oxidation cost per cubic metre of settled wastewater of average strength	m^3
St	The total suspended solids content of the customer's trade effluent	mg/l
Ss	The average national figure for SS of settled wastewater as determined by UÉ across all its wastewater treatment plants	mg/l
S	The charge per cubic metre for treatment and disposal of primary sludge from a wastewater treatment plant	m^3

Appendix 3 - List of TE Categorisation Codes

UÉ grants and enforces trade effluent licences for specified Commercial Activities and Industrial Activities. Trade effluent customers will be classified into three Categories based upon activity and annual consumption for charging purposes. A customer's classification will be reviewed annually based on the most recent, if any, changes to the business activity and the most recent consumption data. TEC codes are used to categorise trade effluent customers into defined Commercial Activities and Industrial Activities with similarities in the relative strength of trade effluent discharged.

Some typical Customer types carrying out Commercial and Industrial Activities which require a trade effluent licence include those listed in table A3.1:

Table A3.1: List of common Commercial and Industrial Activities requiring a trade effluent licence

Industrial Activities	Commercial Activities
• Biopharma, Chemical, Pharmaceuticals, medical devices • Energy – Data centres, boiler blowdown • Food and Drink – production and manufacture of food products and beverages • Manufacturing/ Engineering • Metals – smelting • Scientific and Technical Activities – Laboratories • Surface Coatings – metal finishing Transportation – Plant and vehicle washing • Transportation – Pant and vehicle washing • Waste – waste collection, treatment, and disposal activities	• Food Services – Food Service Establishments e.g., Restaurants, Cafes, Delis etc. • Hospitals and Nursing homes • Laundering • Swimming pools • Commercial Car washes • Construction Activities

UÉ assigns business activities a TEC code description and number which reflects each trade effluent licensee's primary activity and relative strength of effluent discharged. TEC codes are banded together into Commercial Activities and Industrial Activities reflecting similarities in the strength or concentration of pollutants in the wastewater discharged.

A detailed description and guide to the TEC codes used for classifying as Commercial Activities and Industrial Activities is set out in tables A3.2. and A3.3 respectively.

Listed in each table is sector classification which can be used to help identify TEC codes that may apply to a given trade effluent customer. Customers can find which TEC code applies to them by identifying the activity classification that best describes their primary activity. UÉ has a guide to each classification to help customers understand in more detail what the activity classification means.

Table A3.2: List and guide to Commercial Activities by TEC Code.

TEC Code[41]	Sector Classification	Activity Classification	Guide to Classification
15.2	Service Activities	Laundering (Small-scale)	Coin-op launderette and small-scale laundry operations (<=50 m^3/day).
30.2	Agriculture	Farming, livestock markets, horticulture, and related activities	General farming, horticulture, and nursery activities. Animal husbandry services (boarding and care), including aquatic animals. Veterinary activities. Associated hygiene activities. (See TEC code 31.1 for cleaning of farm machinery.)
31.2	Transportation	Vehicle and plant washing	Vehicle washing (external) of cars, commercial fleet vehicles, lorries/trucks, HGV's, and PSV's (not including hand car wash activities)
32.1	Service Activities	Leisure facilities	Swimming pools, leisure and sports facilities open for the general public's use.
33.1	Scientific and Technical Activities	Photographic and X-ray film processing	Consumer and commercial film processing and printing. Commercial and health X-ray. Microfiche. Photographic activities associated with newspapers.
38.2	Scientific and Technical Activities	Laboratory and research activities (Medium Impact)	General laboratory services and research activities into non-biological materials. Technical testing and quality control of products.
39.1	Energy	Boiler blowdown	Boiler and compressor blowdown, water softer regen waste and cooling tower bleed.

[41] This list represents the currently known Commercial Activities which result in a trade effluent discharge. UÉ may, as required, update the list of TEC codes to include other trade effluent activities which fall outside the current TEC code list.

40.2	Waste collection, treatment, and disposal activities; materials recovery	Water arising from excavations. Not treated groundwater remediation schemes. (<12 months duration)	Water arising from excavations. Not to include treated groundwater remediation schemes (<12 months duration).
43.1	Service Activities	Patient Care General	Discharges from hospitals and nursing homes < 50m^3/Day.
40.2	Construction Activities	Water arising from excavations. Not treated groundwater remediation schemes. (<12 months duration)	Water arising from excavations. Not to include treated groundwater remediation schemes (<12 months duration).
50.1	Food Services	Food Service Establishments	Food Service Establishments (FSEs) are where food is prepared, cooked, or served. These include restaurants, takeaways, pubs which serve cooked food, cafés, coffee shops, hotels, B&Bs, convenience stores and supermarkets, garage forecourt shops with delicatessen counters, food production kitchens etc.

Table A3.3: List and guide to Industrial Activities by TEC Code

TEC Code[42]	Sector Classification	Activity Classification	Guide to classification
1.1	Food and Drink	Alcoholic beverages	Manufacture of beer, wines, cider and perry and other alcoholic beverages.
2.1	Manufacturing/ Engineering	Brick making	Manufacture of non-cementitious products.
3.1	Manufacturing/ Engineering	Cement, lime, plaster, ready-mix concrete manufacture, and their products	Manufacture of cement, lime, plaster processes and products. Technical testing of products.
3.2	Manufacturing/ Engineering	Concrete batching yard	Surface water run-off from ready-mix concrete batching yard.
4.1	Biopharma/Chemical	Chemical and pharmaceutical manufacture	Manufacture of chemicals including dyestuffs/pigments, fertilisers, agro-chemicals, photographic and pharmaceutical including veterinary products.
6.1	Food and Drink	Ethanol and methanol distillation	Manufacture and distillation of ethanol and methanol.
7.1	Energy	Electricity generation and distribution	Generation by all means. Transmission, distribution, and supply, not including associated cooling or regen' water (TEC code 39.1).
8.1	Manufacturing/ Engineering	Engineering	Engineering based manufacturing. Metal fabrication processes (e.g., welding). Physical surface treatment (tumbling, de-burring, painting). Cleaning of products and plant. Technical testing.
9.1	Food and Drink	Food processing	Slaughtering. Primary preparation and preservation of meat, including

[42] This list represents the currently known Industrial Activities which result in a trade effluent discharge. UÉ may, as required, update the list of TEC codes to include other trade effluent activities which fall outside the current TEC code list.

			pelagic fish species. Liquid dairy products (milk / yoghurts), sugar products. Soft drinks. Flavours, essences.
9.2	Food and Drink	Food processing	Manufacture of cheese type dairy products, bakeries. Secondary preparation and preservation of meat & fish. Production of pet foods, animal feeds, soups, ready meals. Malt production. Quality control testing.
9.3	Food and Drink	Food processing	Primary preparation of fish (e.g., filleting) excluding pelagic species. Packaging, bottling. Production of mineral water. Salad and vegetable washing. Tobacco.
10.1	Manufacturing/ Engineering	Gas production, storage, and distribution	Production, storage, and distribution, including gas holder seal water overflow. Excluding ground/site remediation.
11.1	Manufacturing/ Engineering	Glass making and products	Production, shaping and processing (including toughened, laminated, insulating, hollow, scientific and mirrors).
12.1	Manufacturing/ Engineering	Glue and adhesive manufacture	Manufacture of glue and adhesive compounds and associated products. Cleaning of equipment.
13.1	Manufacturing/ Engineering	General manufacturing	Manufacture and assembly of products not involving a specific process.
14.1	Metals	Iron and steel making and ferrous metal foundry	Iron and steel making, processing. Manufacture of cast iron and steel products.
15.1	Service Activities	Laundering (Large-scale)	Commercial, industrial; and private hospital laundries (>50 m^3/day).
16.1	Manufacturing/ Engineering	Leather, tanning and dressing	Tanning, dressing and recovery. Technical testing.

17.1	Metals	Metal smelting	Refining and processing of non-ferrous metals.
18.1	Manufacturing/ Engineering	Paint manufacture	Manufacturing of paints and coating products. Cleaning of equipment. Technical testing.
19.1	Manufacturing/ Engineering	Paper and paperboard products	Manufacture of pulp, paper and board and their products including associated processes of coating, covering, impregnation and gluing. Cleaning of equipment.
20.1	Manufacturing/ Engineering	Petroleum refining	Refining of petroleum and its products. Bulk storage. Excluding contaminated surface water run-off.
21.1	Manufacturing/ Engineering	Plastics manufacturing	Manufacture of plastics and its use in manufacturing of other items.
22.1	Surface Coating	Plating and metal finishing	Surface treatments such as electro-deposition, enamelling, chemical etching and/or engraving, pacifying, hardening and heat treatment. Includes zinc phosphating.
22.2	Surface Coating	Plating and metal finishing	Surface treatments such as iron phosphating, mechanical etching and/or engraving, powder coating, anodising, alochrome, fast-blacking and lacquering.
23.1	Manufacturing/ Engineering	Pottery making	Manufacture of ceramics, pottery, and chinaware.
24.1	Manufacturing/ Engineering	Printing and related activities	Manufacture of inks. Printing of newspapers, books, magazines, brochures, stationary etc. Offset, flexographic and screen printing. Production of plates and stencils. Associated processes of bookbinding and finishing. Cleaning of equipment.
26.1	Manufacturing/ Engineering	Rubber processing and products	Processing of rubber compounds. Manufacture of finished rubber products. Cleaning of equipment.
27.1	Manufacturing/ Engineering	Soap, detergents,	Manufacture of soap, detergent, cleaning, and polishing products.

		toiletries, and cleaning products	Cosmetic products and toiletries. Cleaning of equipment. Technical testing.
28.1	Manufacturing/ Engineering	Textile - cotton and synthetic	Washing of raw material. Finishing including bleaching, dyeing, etc.
29.1	Manufacturing/ Engineering	Textile – woollen	Washing of raw material. Finishing including bleaching, dyeing, etc.
30.1	Agriculture	Farming, livestock markets, horticulture, and related activities	Intensive rearing of livestock and poultry. Dairy farming and Livestock markets.
31.1	Transportation	Vehicle and plant washing	Heavy industrial tool & plant washing not under 31.2. CVRT washings of HGV's and PSV's. Washing down of agricultural machinery associated with agro-chemical application. Also, aircraft & under body cleaning of trains.
34.1	Manufacturing/ Engineering	Electrical, electronic and instrument manufacture	Manufacture of printed circuit boards and electrical / electronic components including associated plating and etching. Associated cleaning activities. Technical testing.
36.1	Waste collection, treatment, and disposal activities; materials recovery	Domestic refuse containers	Cleaning of domestic refuse containers.
37.1	Waste collection, treatment, and disposal activities; materials recovery	Tip leachates and land remediation	Leachate and contaminated groundwater from active refuse landfills, land remediation schemes and Alpheus waste reception centres.

37.2	Waste collection, treatment, and disposal activities; materials recovery	Tip leachates and land remediation	Leachate and contaminated groundwater from closed refuse landfills.
38.1	Scientific and Technical Activities	Laboratory and research activities (High Impact)	General laboratory services and research activities into biological materials. Technical testing and quality control of products.
39.2	Energy	Cooling tower bleed	Bleed off from cooling towers.
40.1	Waste collection, treatment, and disposal activities; materials recovery	Rainwater and surface water run-off	Contaminated rainwater and surface water run-off including bund water from Civic amenities, waste recycling sites, waste transfer stations and End-of-Life vehicle dismantling yards.
41.1	Waste collection, treatment, and disposal activities; materials recovery	Tanker cleaning (internal)	Internal cleaning of road tanker, bulk container vehicles, skips and industrial refuse containers.
44.1	Service Activities	Funeral Directors and Morticians	Funeral Directors, Undertakers, Morticians and Taxidermists - activities involving the preservation or disposal of human and animal bodies. Activities involving the making or cleaning of funeral accessories.
44.2	Service Activities	Water cremation (alkaline hydrolysis)	Water cremation (alkaline hydrolysis).