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NATIONAL WATER COMMISSION

SERVING YOU
In So Many Ways

NWC TARIFF SUBMISSION

FOR THE PERIOD 2027 - 2031

October

2026

[redacted]

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1. Executive Summary

This Final Report presents the results of the Cost of Service and Tariff Study developed for the National Water Commission (NWC). The study provides an integrated regulatory framework for determining the initial tariff adjustment, assessing NWC's projected financial and operational performance over the forthcoming tariff period, and defining the regulatory mechanisms applicable under the Price Cap regime historically adopted by the Office of Utilities Regulation (OUR).

The methodology applied in the study combines a **Test-Year Cost of Service assessment** with a **forward-looking Price Cap analysis**. These two components serve different but complementary purposes.

For the determination of the initial tariff adjustment, **FY2025/26 is adopted as the Base Year and Test Year**. The initial Revenue Requirement and tariff adjustment are therefore determined exclusively on the basis of the operating costs, Regulatory Asset Base, regulatory depreciation, allowed return, billed demand and Verified Revenue corresponding to FY2025/26. Costs, investments, demand and revenues arising in subsequent years are not incorporated into the calculation of the initial Ordinary Tariff Review adjustment.

A separate **forward-looking analysis** is undertaken over the five-year tariff period. This analysis does not determine the initial tariff adjustment. Instead, it supports NWC's Business Plan and financial projections and provides the prospective assessment required for the determination of the K-Factor and X-Factor. The analysis incorporates projected demand, billed volumes, operating expenditure, capital expenditure, Regulatory Asset Base evolution, revenues and financial performance.

This approach is consistent with the Price Cap framework historically applied to NWC. Once the initial tariff level has been established through the Test-Year Cost of Service assessment, tariffs evolve during the regulatory period through the applicable adjustment and incentive mechanisms. These include the Price Adjustment Mechanism (PAM), which reflects movements in specified exogenous cost drivers; the K-Factor, which provides funding for qualifying prospective investment requirements; and the X-Factor, which transfers expected efficiency and productivity improvements to customers over the tariff period.

The study is supported by an integrated modelling framework comprising the **Technical Model, the Tariff and Financial Model and the Tariff Structure Model**. Together, these tools link NWC's operating costs, asset base, investment requirements, demand, service coverage, Non-Revenue Water (NRW), revenues and financial projections. The models also provide the flexibility to analyse results at company level and, where applicable, by parish and by service.

A detailed cost-allocation methodology was developed to support the Cost-of-Service assessment. NWC's expenditures are classified using Expenditure Categories and Cost Centres and are allocated across water and wastewater services, geographical areas and operational functions. This framework improves the transparency and traceability of the cost information used for tariff determination and

provides the basis for assessing Base-Year OPEX and developing the forward-looking operating-cost projections.

1.1. Regulatory Asset Base and Cost of Capital

The Regulatory Asset Base is a key component of the Revenue Requirement because it determines both the regulatory depreciation and the return on capital recognised through tariffs.

The methodology applied to NWC's asset base combines an asset-based Fair Value assessment with an economic recoverability assessment. The asset valuation undertaken by Ernst & Young (EY) for FY2022/23 established the Fair Value of the relevant asset portfolio and subsequently assessed the economic recoverability of that value. Following the application of the Economic Obsolescence adjustment, the regulatory opening asset value was established at approximately **USD 517.47 million**.

Rather than undertaking a new full revaluation in each subsequent year, this regulatory asset value was rolled forward through FY2023/24, FY2024/25 and FY2025/26. The roll-forward incorporates qualifying capital additions and asset indexation and deducts regulatory depreciation and qualifying asset disposals or retirements.

As a result, the **Initial Net Regulatory Asset Base as at March 31, 2026 amounts to approximately JMD 87.22 billion**. This represents the regulatory asset value used for the FY2025/26 Base Year and constitutes the basis for calculating the allowed return on capital and the corresponding regulatory depreciation.

The study adopts a WACC-based methodology for the remuneration of the Regulatory Asset Base. This approach is particularly relevant given NWC's negative accounting equity, which limits the usefulness of a direct Return on Equity measure for regulatory purposes. The WACC methodology instead recognises the opportunity cost of both debt and the notional equity supporting the assets used in the regulated activity.

The resulting **real pre-tax JMD-denominated WACC is 11.52%**. This rate is applied to the Net Regulatory Asset Base in determining the allowed regulatory return included in the Revenue Requirement.

1.2. Revenue Requirement and Tariff Adjustment

The Revenue Requirement represents the efficient cost that NWC must recover to provide regulated water and wastewater services while maintaining and remunerating the assets required for service provision.

Under the Test-Year methodology, the Revenue Requirement is calculated on the basis of:

- efficient operating expenditure;
- regulatory depreciation; and
- the allowed return on the Net Regulatory Asset Base.

The resulting Revenue Requirement is compared with the Verified Revenue corresponding to the same Test Year. Verified Revenue represents the revenue that NWC would obtain by applying the tariffs in force at the time of the tariff review to the billed demand associated with the Base Year.

The initial tariff adjustment is therefore determined as:

$$OTR_{TY} = \frac{RR_{TY}}{VR_{TY}} - 1$$

where:

- OTR: tariff adjustment index resulting from the Ordinary Tariff Review process.
- RR_{TY}: Revenue Requirement for the test year.
- VR_{TY}: Verified Revenue for the test year.

Based on the assumptions and scenario adopted in the Tariff and Financial Model, the resulting **average tariff adjustment under the Test-Year approach is 54.9%** relative to the current tariff level[1].

This adjustment results from the difference between the Revenue Requirement of JMD 63,408,172,799 and the Verified Revenue of JMD 40,927,593,672. The Revenue Requirement is composed of approximately 80% OPEX, 16% Opportunity Cost/Capital Remuneration, and 4% Depreciation.

Regulatory OPEX is primarily composed of Employee Costs, Electricity, PPP costs, Contracted Services, Pensions, Bad Debt, Materials, and Other operating expenses. The remaining balance comprises insurance, security, purchased water, gas and fuels, chemicals, commissions, self-insurance, public services, and concession-related costs.

The study also calculates a forward-looking revenue gap over the five-year tariff period by comparing the present value of projected Revenue Requirement with the present value of Verified Revenue. The resulting forward-looking variation is **64.3%**. This figure should not be interpreted as the initial Ordinary Tariff Review (OTR) adjustment. Rather, it provides an assessment of the projected revenue and financing requirements of NWC over the regulatory period and supports the evaluation of the regulatory mechanisms and financial sustainability of the utility.

Table 1: Revenue Requirement

		2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Cost Component	Unit	Base Year JDM	Year 1	Year 2	Year 3	Year 4	Year 5
Opportunity Cost	JMD	10,047,608,867	10,047,608,867	12,253,125,646	14,369,430,960	15,866,920,776	17,139,976,479
Depreciation	JMD	2,755,628,809	2,755,628,809	3,202,020,436	3,627,980,765	3,881,139,474	4,084,188,432
OPEX	JMD	50,604,935,123	51,659,150,191	52,660,027,915	53,451,598,343	54,221,225,389	54,952,915,769
TOTAL RR	**JMD**	**63,408,172,799**	**64,462,387,867**	**68,115,173,996**	**71,449,010,068**	**73,969,285,639**	**76,177,080,680**

[1] The Tariff Transition Mechanism section of the Tariff and Financial Model allows users to simulate a progressive implementation of the tariff adjustment over the five-year tariff period.

Cost Component	Unit	2025-2026 Base Year JDM	2025-2026 %
Opportunity Cost	JMD	10,047,608,867	16%
Depreciation	JMD	2,755,628,809	4%
OPEX	JMD	50,604,935,123	80%
TOTAL RR	**JMD**	**63,408,172,799**	**100%**

Source: Tariff & Financial Model

Table 2: Verified Revenue

Service	Unit	2025-2026 Base Year	2026-2027 Year 1	2027-2028 Year 2	2028-2029 Year 3	2029-2030 Year 4	2030-2031 Year 5
W	JMD	32,779,052,512	33,179,272,112	33,597,701,356	34,024,466,876	34,463,521,434	34,913,278,795
WW	JMD	8,148,541,160	8,360,638,607	8,585,570,952	8,826,092,135	9,083,234,633	9,356,606,161
TOTAL VR	**JMD**	**40,927,593,672**	**41,539,910,719**	**42,183,272,307**	**42,850,559,011**	**43,546,756,067**	**44,269,884,956**

Source: Tariff & Financial Model

Table 3: Average Tariff Variation

Concept	Unit	2025-2026 Base Year
Revenue Required	JMD	63,408,172,799
Revenue Verified	JMD	40,927,593,672
Average Tariff Variation	%	**54.9%**

Source: Tariff & Financial Model

1.3. X factor

The X-Factor reflects the efficiency and productivity improvements expected to be achieved by NWC during the regulatory period and passed through to customers under the Price Cap framework.

Because these efficiency improvements are expected to materialise in future years, the X-Factor is determined using the forward-looking module of the Tariff and Financial Model rather than the Base-Year Cost of Service assessment.

Two operating-cost trajectories are developed:

- a Base or No-Efficiency OPEX projection, reflecting the expected evolution of costs before additional efficiency gains; and
- an Efficient OPEX projection, incorporating the expected effects of NRW reduction, energy-efficiency measures, workforce-productivity improvements, collection improvements and other operational-efficiency initiatives.

The X-Factor is calibrated through a Discounted Cash Flow analysis so that the projected regulatory cash flow under the Efficient Scenario generates a return consistent with the regulatory WACC.

For the selected scenario, the X factor was set at 3.78%.

Accordingly, while the Test-Year methodology establishes the initial cost-reflective tariff level, the X-Factor establishes the efficiency adjustment to the subsequent tariff trajectory and allows customers to share in the efficiency gains expected during the Price Cap period.

1.4. K factor

The K-Factor provides a dedicated mechanism to fund qualifying capital-intensive programmes expected to be undertaken during the tariff period, particularly investments associated with rehabilitation, NRW reduction, wastewater infrastructure and other efficiency-enhancing projects.

The K-Factor is determined prospectively and operates separately from the recovery and remuneration of assets already incorporated into the Base-Year of the Regulatory Asset Base. This separation is important to avoid double recovery of capital costs.

The prospective K-Factor cash-flow requirement incorporates both new qualifying investments expected during the forthcoming tariff period and the remaining commitments associated with previously approved K-Factor programmes.

As part of this tariff review, NWC proposes the inclusion of a fourth core area under the K-Factor: renewable energy and energy efficiency (RE/EE) investments supporting water supply and wastewater operations. NWC also proposes extending the K-Factor Fund from its current horizon of 2032 to 2058, in order to support the continued financing of essential capital works and priority infrastructure investments over the longer term.

For the selected scenario, the K factor rate is 11.82%.

The K-Factor percentage is calculated based on the Base Year Revenue Requirement. Therefore, should the OUR introduce any adjustments to the Base Year Revenue Requirement, the K-Factor percentage must be recalculated accordingly.

1.5. Extraordinary Tariff Review

NWC requests OUR's approval of an Extraordinary Tariff Review (ETR) mechanism to address exceptional events beyond the Commission's control that could not reasonably have been anticipated at the periodic tariff review and have material cash-flow consequences. Where possible, the review would be confined to the affected cash-flow items and completed within 60 days, unless otherwise agreed between OUR and NWC. Any resulting adjustment would apply only within the current regulatory period and would not alter the scheduled timing of the next Ordinary Tariff Review.

1.6. Tariff Structure

This tariff application proposes a new structure to enable NWC to provide water and sewerage services that meet both current and future needs. The proposed tariff structure was designed in keeping with NWC's goals and OUR guiding principles:

i) ***Revenue Recovery***: Ensure sufficient revenue generation to meet the company's overall financial requirements, i.e. to adequately cover the actual cost of services provision, revenue to finance improvements required to meet NWC's availability, reliability and quality of services goals.

ii) ***Cost Efficiency***: Establish tariffs that are cost-based, affordable, and promote economic efficiency in production and consumption, encouraging efficient usage (patterns that reduce the total cost of service provision).

iii) ***Cost Reflexivity (Equity***): Provide costs recovery from customers in proportion to their use of the system and should acknowledge the impact each customer class has on system facilities and operations. All stakeholders (customers and the public) should perceive the tariffs as being fair; notwithstanding, social and equity matters should also be considered.

iv) ***Operational Efficiency***: Support the Commission's operational sustainability by enabling the company to earn a reasonable return on investments and allow it to source and service the required financing.

v) ***Simplicity***: Ensure the tariffs avoid unnecessary complexity and are understandable to users who make decisions based on price.

vi) ***Public Interest***: Ensure the tariff consider matters of public interest such as the Government's policy goal to ensure that everyone has the right to receive a minimum level of potable water supply at an affordable price, and that tariffs should, as much as possible, discourage "excessive" or "wasteful" use of water, thus promoting conservation.

The NWC's current tariff structure is a two-part tariff: a fixed charge, called service charge and a variable charge, called the volumetric rate. The service charge is a fixed monthly charge applied to customers' bills based on the diameter size of the customer's connection. This fixed charge does not consider the category of the customer. The variable charge is billed based on the volume consumed, the metering system and the customer's category.

The existing tariff structure classifies customers into the following categories, residential, commercial, condominiums and schools. The residential category accounts for 93% of customers and 66% of the volume of water consumed. The commercial category accounts for 6% of customers and 23% of volume consumed. School and Condominiums account for 1% of customers and 11% volume consumed.

There are two other categories, referred to as subcategories in the report: the employee (or "staff") and the government subcategories. The staff subcategory applies to residential customers that are NWC's employees and receive a discount on their bill. The government category includes customers charged with residential, commercial or school rates. Government customers' average monthly consumption is 187m^3/customer, which is ten times higher than the average consumption of the residential subcategory, two times higher than the commercial category and almost half of the school category. It is worth mentioning that 35% of government customers are standpipe customers, a customer classification that addresses social needs.

Within the existing tariff structure, different consumption blocks assign different variable charges within the same category of customer; thus, a cascading tariff structure is formed. Only the condominium and school categories have one consumption block. The commercial category has two consumption blocks while the domestic/residential has four consumption blocks. It is remarkable that the first consumption block for the residential category holds 70% of customers and 30% to 50% of the category volume consumed (depending on the metering system).

Each of these categories is different based on the metering system: Imperial Gallons or Metric Metered. According to the NWC's billing base, 82% of the customers and 85% of the volume are metered by the metric system. The coexistence of these two metering systems generates duplicity in tariffs application and adds more complexity to the billing methods.

As reported by the Jamaican Survey of Living Conditions 2023, most vulnerable households (the first income quintile) spend 4.3% of their monthly income in water supply services, while the wealthiest households (fifth quintile) spend only 2.3%. The relative weight of Jamaican household expenditure on water services is relatively high if compared to tariffs recommended by the World Health Organization (WHO)**.** Furthermore, the estimated monthly household consumption is approximately 10.5 m^3 for the first quintile (the poorest households) and 14 m^3 for the fifth income quintile (the richest households). In other words, both the poorest and the richest households' consumptions are in the first block of NWC´s residential rate (below 14m^3). This indicates there is an opportunity to subdivide the residential block 1 to establish more affordable and fair rates within this category.

NWC's proposal is that the Service Charge collects **11.50%** of the revenue requirement, which is a 10% increase in the value of such a tariff component. The rest of the revenue will roll in through the volumetric rate.

The rest of the adjustments to the current tariff structure are proposed within the variable charge:

- **Unify all customers to the metric system** to help simplify the administration and equality of the tariff structure.
- **Create a separate category for government customers**, given their particular consumption pattern.
- **Changes in the number of consumption blocks for the commercial and residential** tariff category.
- **Add progressivity to the commercial and residential tariff.** Progressivity might address one of the reasons for customers' non-payment of bills: high tariffs for low consumption (generally associated with vulnerable customers). The progressivity of the commercial category has been specifically designed to avoid the attrition of large customers.

Once all the changes proposed in this report have been applied, the final tariffs applicable to customers have been calculated.

The tables below display the proposed service charges and volumetric rates for each service:

[redacted]

Table 4: Service Charge proposed

Service Charge	Proposed (JMD $)
5/8 inch – 15mm	1,400.19
¾ inch – 20mm	3,062.79
1 inch – 25mm	3,999.62
1 ¼ inch – 30mm	7,530.85
1 ½ inch – 40mm	7,530.85
2 inch – 50mm	10,665.68
3-inch -75 mm	19,367.56
4 inch – 100 mm	31,294.37
6 inch – 150 mm	47,671.21

Source: Tariff Structure Model

Table 5: Tariff Schedule Proposed – Water and Wastewater Service

	Water	Wastewater
Residential	(JMD $)	(JMD $)
<=7	225.14	260.04
>7<=15	270.17	312.05
>15<=27	405.26	468.07
>27<=63	607.89	702.11
>63	911.83	1,053.16
Commercial	(JMD $)	(JMD $)
<=21	788.00	910.14
>21<=105	1,182.00	1,365.21
>105<=452	1,300.20	1,501.73
>452<=2.000	1,430.22	1,651.90
>2.000	572.09	660.76
Government	(JMD $)	(JMD $)
<=29	562.86	650.10
>29<=87	675.43	780.12
>87<=205	810.52	936.14
>205<=554	972.62	1,123.37
>554;<=999,999	1,167.14	1,348.05
Condominiums	(JMD $)	(JMD $)
	450.29	520.08
Schools	(JMD $)	(JMD $)
	337.71	390.06

Source: Tariff Structure Model

It is noteworthy that the final bill (in JMD$ from April 2026) for the first consumption block of residential category (up to 7m^3) is **1,990.97** which represents **2.19%**[2] of total household expenditure. For the second consumption block (up to 15m^3), the final bill is **4,364.88,** representing **2.55%** of the household expenditure. **Both percentages are in keeping with the suggestion by WHO** (see section 7.2.2.5).

The table below shows that, on average, the total impact on residential water and wastewater bills would be **26.83%.** For commercial customers consuming less than 2,000 m³, the average increase would be **23%,** while commercial customers with consumption exceeding 2,000 m³ would face an average increase of **33.44%.**

The projected impact for government customers is **49.94%,** for condominiums **36.51%,** and for schools **29.06%.**

Table 6: Tariff Schedule Proposed – Water and Wastewater Service

		W			WW			W+WW		
Category	Consumption Block / Connection	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Final Bill - proposed tariffs (April /2026 JMD $)	Total Bill Impact (%)	Weighted Average Change (%)
Residential 5/8 inch / 15mm	For up to 7m3 (3m3 W / 4m3 S)	36%	1.990,97	9%	38%	2.626	14%	3.110	16%	
	For the next 8m3 (12m3 W / 11m3 S)	34%	4.365	25%	37%	4.472	25%	7.331	30%	
	For the next 12m3 (21m3 W / 20m3 S)	20%	7.272	28%	19%	7.662	29%	13.427	32%	26,83%
	For the next 36m3 (38m3 W / 37m3 S)	8%	14.684	40%	5%	17.482	42%	30.660	44%	
99%	Over 63m3 (133m3 W / 161m3 S)	1%	88.263	46%	1%	133.438	49%	220.195	48%	

		W			WW			W+WW		
Category	Consumption Block / Connection	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Final Bill - proposed tariffs (April /2026 JMD $)	Total Bill Impact (%)	Weighted Average Change (%)
Commercial - 5/8 inch / 15mm	For up to 21m3 (5m3 / 5m3)	74%	5.746	15%	73%	4.444	14%	8.683	16,9%	
	For the next 84m3 (44m3 / 47m3)	19%	44.746	47%	19%	38.228	39%	81.467	44,1%	
	For the next 347m3 (201m3 / 204m3)	5%	243.646	81%	6%	205.237	75%	447.376	78,4%	26,24%
	For the next 1548m3 (863m3 / 852m3)	1%	1.163.992	103%	2%	954.942	97%	2.117.427	100,3%	
91%										
Commercial - 1 inch / 25mm	For up to 21m3 (5m3 / 5m3)	74%	8.542	11,3%	73%	7.241	9,8%	11.480	13,4%	
	For the next 84m3 (44m3 / 47m3)	19%	47.542	43,6%	19%	41.025	35,6%	84.264	42,3%	
	For the next 347m3 (201m3 / 204m3)	5%	246.443	79,0%	6%	208.034	73,4%	450.173	77,6%	23,26%
	For the next 1548m3 (863m3 / 852m3)	1%	1.166.789	102,2%	2%	957.738	96,6%	2.120.224	100,0%	
5%										
Commercial - 2 inch / 50mm	For up to 21m3 (5m3 / 5m3)	74%	15.715	7,7%	73%	14.413	6,8%	18.652	9,5%	
	For the next 84m3 (44m3 / 47m3)	19%	54.715	36,7%	19%	48.197	29,7%	91.436	38,3%	
	For the next 347m3 (201m3 / 204m3)	5%	253.615	75,4%	6%	215.206	69,6%	457.345	75,6%	19,49%
	For the next 1548m3 (863m3 / 852m3)	1%	1.173.961	101,1%	2%	964.911	95,3%	2.127.396	99,4%	
2%										

[2]The following calculations have been made according to the information published in the Jamaica Survey Living Condition 2019.

	Water as % of Total Household Consumption (Study)	Mean water payment (JDM/Month Dec 2023)	Household Income (Dec/2023)	Household Income (March/2026)	Water as % of Total Household Income
Poorest	4,3%	3.555,00	82.674,42	90.966,66	2,19%
4th quintile	2,8%	4.348,00	155.285,71	170.860,87	2,55%

		W			WW			W+WW		
Category	Consumption Block / Connection	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Final Bill - proposed tariffs (April /2026 JMD $)	Total Bill Impact (%)	Weighted Average Change (%)
Commercial >2000 - 4 inch / 100mm	2500m3	7%	3.333.559	85,4%	7%	3.845.031	85,6%	7.144.920	86,2%	
	5000m3	20%	4.872.365	36,7%	19%	5.622.348	36,7%	10.461.043	36,9%	
	10000m3	16%	7.949.979	16,4%	20%	9.176.982	16,4%	17.093.291	16,4%	
	15000m3	17%	11.027.592	24,1%	14%	12.731.617	24,1%	23.725.538	24,1%	
	20000m3	11%	14.105.205	28,8%	12%	16.286.251	28,8%	30.357.786	28,9%	33,44%
	25000m3	8%	17.182.819	32,1%	4%	19.840.885	32,1%	36.990.033	32,1%	
	30000m3	10%	20.260.432	34,5%	11%	23.395.519	34,5%	43.622.281	34,5%	
	35000m3	8%	23.338.046	36,3%	11%	26.950.153	36,3%	50.254.528	36,3%	
47%	40000m3	3%	26.415.659	37,7%	3%	30.504.787	37,7%	56.886.776	37,7%	

		W			WW			W+WW		
Category	Consumption Block / Connection	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Final Bill - proposed tariffs (April /2026 JMD $)	Total Bill Impact (%)	Weighted Average Change (%)
Government - 5/8 inch / 15mm	For up to 29m3 (12m3 W / 9m3 S)	52%	8.774	61,6%	27%	10.598	39,6%	15.069	70%	
	For the next 58m3 (53m3 W/ 53m3 S)	23%	35.783	42,2%	28%	20.951	88,1%	55.228	58%	
	For the next 118m3 (128m3 W / 136m3 S)	14%	95.228	31,5%	26%	38.242	23,2%	131.963	29%	59,96%
	For the next 3498m3 (310m3 W / 336m3 S)	7%	267.719	43,9%	15%	97.466	13,9%	363.679	35%	
84%	Over 554m3 (2734m3 W/2953m3 S)	4%	3.195.299	87,9%	4%	6.882.639	91,9%	10.076.432	91%	
Government - 1 inch / 25mm	For up to 29m3 (12m3 W / 9m3 S)	52%	11.570	42,4%	27%	10.598	39,6%	17.865	54,4%	
	For the next 58m3 (53m3 W/ 53m3 S)	23%	38.580	38,5%	28%	23.748	71,7%	58.025	54,6%	
	For the next 118m3 (128m3 W / 136m3 S)	14%	98.025	30,6%	26%	41.039	21,6%	134.760	28,7%	50,92%
	For the next 3498m3 (310m3 W / 336m3 S)	7%	270.516	43,4%	15%	100.263	13,6%	366.476	34,3%	
7%	Over 554m3 (2734m3 W/2953m3 S)	4%	3.198.096	87,8%	4%	6.885.436	91,8%	10.079.229	90,6%	
Government - 2 inch / 50mm	For up to 29m3 (12m3 W / 9m3 S)	52%	18.743	24,7%	27%	17.771	22,6%	25.038	35,5%	
	For the next 58m3 (53m3 W/ 53m3 S)	23%	45.752	31,6%	28%	30.920	49,1%	65.197	46,7%	
	For the next 118m3 (128m3 W / 136m3 S)	14%	105.197	28,3%	26%	48.211	18,6%	141.932	27,2%	38,95%
	For the next 3498m3 (310m3 W / 336m3 S)	7%	277.688	42,0%	15%	107.435	12,9%	373.648	33,6%	
5%	Over 554m3 (2734m3 W/2953m3 S)	4%	3.205.268	87,4%	4%	6.892.608	91,7%	10.086.401	90,5%	

		W			WW			W+WW		
Category	Consumption Block / Connection	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Final Bill - proposed tariffs (April /2026 JMD $)	Total Bill Impact (%)	Weighted Average Change (%)
Condominium	5/8 inch / 15mm	26%	161.867	38%	26%	168.257	38%	328.617	38,05%	
	3/4 inch / 20mm	0%	163.656	37%	0%	170.046	37%	330.406	37,81%	
	1 inch / 25mm	12%	164.664	37%	12%	171.054	37%	331.414	37,67%	
	1 1/4 inch / 30mm	0%	168.463	36%	0%	174.853	36%	335.213	37,16%	
	1 1/2 inch / 15mm	2%	168.463	36%	2%	174.853	36%	335.213	37,16%	36,51%
	2 inch / 50mm	32%	171.836	35%	32%	178.226	35%	338.586	36,73%	
	3 inch / 75mm	4%	181.198	33%	4%	187.588	33%	347.949	35,57%	
	4 inch / 100mm	24%	194.031	31%	24%	200.421	31%	360.781	34,11%	
	6 inch / 150mm	0%	211.651	28%	0%	218.041	28%	378.401	32,31%	
School	5/8 inch / 15mm	50%	98.522	29%	50%	107.684	29%	204.700	29,57%	
	3/4 inch / 20mm	0%	100.311	29%	0%	109.473	29%	206.488	29,29%	
	1 inch / 25mm	28%	101.319	28%	28%	110.481	28%	207.496	29,13%	
	1 1/4 inch / 30mm	0%	105.118	27%	0%	114.280	27%	211.296	28,57%	
	1 1/2 inch / 15mm	2%	105.118	27%	2%	114.280	27%	211.296	28,57%	29,06%
	2 inch / 50mm	17%	108.491	26%	17%	117.653	26%	214.668	28,09%	
	3 inch / 75mm	1%	117.854	24%	1%	127.015	24%	224.031	26,85%	
	4 inch / 100mm	2%	130.686	22%	2%	139.848	22%	236.863	25,35%	
	6 inch / 150mm	0%	148.306	19%	0%	157.468	19%	254.484	23,57%	

Source: Tariff Structure Model

[redacted]

2. Introduction

Through this submission, the National Water Commission (NWC) requests revisions to its tariffs, service standards and performance targets, for the period April 2027 to March 2031.

The submission is in accordance with the Water Sector Policy of Jamaica, the Office of Utilities Regulation Act (OUR Act), the National Water Commission Act (NWC Act) and the Regulatory Framework established by the Office of Utilities Regulation (OUR).

The tariff assessment is supported by an integrated Tariff and Financial Model designed to determine the Revenue Requirement (RR) and the corresponding tariff adjustment under a test-year approach. Under this methodology, the tariff determination is based exclusively on the Base Year, which serves as the regulatory reference for assessing operating costs, depreciation, the Regulatory Asset Base (RAB), and the required return, reflecting the economic and market conditions prevailing during that year.

A forward-looking analysis is conducted separately to support NWC's Business Plan and to assess the financial and operational implications of the proposed tariff determination over the five-year tariff period. This analysis incorporates projected capital investments, demand, operating expenditures, revenues, and overall financial performance, and provides the basis for determining the K Factor and X Factor applicable throughout the tariff period. Between comprehensive tariff reviews, tariffs are adjusted through the Price Adjustment Mechanism (PAM), which reflects changes in key exogenous cost drivers, including electricity costs, the Consumer Price Index (CPI), and foreign exchange (FX) movements.

The results presented in this report have been calculated using the assumptions and scenario settings described in 12.2 [redacted].

2.1. Legal and Regulatory Framework

NWC is a body corporate established under Section 3 of the NWC Act. Its functions include "to provide and improve water supply services throughout the Island" and "to maintain and operate water supply services provided by the Commission" (NWC Act, section 4(1)(d)–(e)).

The Office of Utilities Regulation (OUR) is responsible for regulating the supply and distribution of water and the provision of sewerage services (OUR Act, section 4). The OUR also has the authority to approve the rates charged for these services (OUR Act, sections 4(4) and 11–13).

Section 11 of the OUR Act empowers the OUR to prescribe utility service rates, except where the relevant enabling instrument specifies an alternative mechanism for setting rates. This exception does not apply to NWC. Rates must therefore be established in accordance with the Water Sector Policy.

Section 3.3.2.5 of the Water Sector Policy states:

[redacted]

"The OUR will be responsible for setting tariffs at a level which allows the service providers to fully recover efficient cost levels (including both capital and operating costs)."

It further states:

"Where exceptional circumstances dictate the need for additional funds for systems improvements or rehabilitation, the OUR will take this into account in setting tariff."

2.2. NWC Current Rates

The following tables summarize the applicable tariff structure based on the most recent adjustment approved by the Office of Utilities Regulation (OUR). The adjustment took effect in April 2026 and applies to bills issued from May 2026 onward. The rates were provided by NWC through its Master Rate Schedule.

Table 7: Water and Wastewater Rates – Service Charge, April 2026

Connection diameter	Service Charge (JMD $)
5/8 inch – 15mm	$1,272.90
¾ inch – 20mm	$2,784.35
1 inch – 25mm	$3,636.02
1 ¼ inch – 30mm	$6,846.23
1 ½ inch – 40mm	$6,846.23
2 inch – 50mm	$9,696.07
3-inch -75 mm	$17,606.87
4 inch – 100 mm	$28,449.43
6 inch – 150 mm	$43,337.46

Source: NWC's Master Rate Sheet

Table 8: Water and Wastewater Rates – Volumetric Rate, April 2026

Volumetric Rate	Charge (JMD $/volume unit)	
Consumer Category	**Water**	**Sewerage**
Domestic Customers		
Imperial Metered		
For up to 3,000 gallons at a rate of	$737.12	$851.38
For the next 3,000 gallons at a rate of	$1,311.88	$1,515.23
For the next 3,000 gallons at a rate of	$1,429.86	$1,651.50
Over 9,000 gallons at a rate of	$2,439.07	$2,817.12
Metric Metered		
For up to 14,000 liters at a rate of	$162.14	$187.26
For the next 13,000 liters at a rate of	$288.56	$333.30

Volumetric Rate	Charge (JMD $/volume unit)	
For the next 14,000 liters at a rate of	$314.53	$363.28
Over 41,000 liters at a rate of	$536.54	$619.68
Commercial and Industrial Customers		
Imperial Metered		
For up to 2,000,000	$2,816.75	$3,253.35
Over 2,000,000 gallons	$1,641.83	$1,896.34
Metric Metered		
For up to 9,100,000	$619.60	$715.64
Over 9,100,000 liters	$361.15	$417.14
Standby Charge (Imperial)		
Annual Contracted Capacity Charge	$1,162.87	
Volumetric	$1,233.56	
Penalty (Usage above contracted capacity)	$1.233,56	
Standby Charge (Metric)		
Annual Contracted Capacity Charge	$255.81	
Volumetric	$271.33	
Penalty (Usage above contracted capacity)	$271.33	
Condominiums		
Imperial Metered	$1,397.27	$1,613.87
Metric Metered	$307.35	$355.02
Primary Schools		
Imperial Metered	$1,116.26	$1,289.27
Metric Metered	$245.57	$283.58

Source: NWC's Master Rate Sheet

2.3. Objectives of the Submission

NWC´s objectives in this submission are to:

1) Enhance the availability, reliability, and quality of services provided by the NWC, while ensuring that the costs of potable water and sewerage services remain at the minimum levels necessary to achieve these improvements.
2) Ensure the sustainability of NWC's operations by enabling the utility to earn a reasonable return on invested capital, thereby facilitating access to and servicing of required financing.

More specifically, NWC's efforts to expand and improve potable water and sewerage services require the support of a rate regime that enables NWC to secure the financing needed to implement its programs and projects.

The proposed rate regime is designed to:

- Support the enhancement and expansion of potable water and sewerage services to address the needs of the Jamaican population, with particular attention to ensuring the affordability of these services for vulnerable groups.
- Incentivize operational efficiency through appropriate performance-based mechanisms.
- Ensure NWC's financial viability, enabling it to sustain its operations and finance the development of its systems.

3. NWC Cost Allocation Methodology

This section presents the analysis of the NWC's service costs and the corresponding results. The analysis was designed to achieve two interrelated objectives. First, the cost allocation methodology was developed to be objective, replicable, and verifiable—ensuring alignment with regulatory best practices while allowing for future refinements based on operational changes. Second, the methodology was applied within the context of NWC's tariff proposal, which requires reliable cost estimates for the base year to serve as a critical input into the determination of the revenue requirement.

3.1. Cost Allocation Methodology

As part of the Cost of Service Study, an objective and structured methodology was developed to analyze and allocate NWC's service costs. This approach leverages the most detailed operational and financial data available within the NWC's information systems. In line with standard regulatory accounting practices, all revenue and expenditure transactions are systematically classified using a dual framework of **Expenditure Categories (ExCs)** and **Cost Centers (CCs)**. This structure enables transparent and consistent allocation of costs to specific functions, services, and geographic areas.

Each **Expenditure Category (ExC)** identifies the nature or type of expense incurred, grouping transactions to support detailed financial reporting and cost analysis. The NWC currently utilizes 209 ExCs, which allows for a granular understanding of spending patterns. However, because some expenditure types—such as electricity—may support multiple operational areas (e.g., both water pumping and customer service), further classification is necessary for accurate cost attribution.

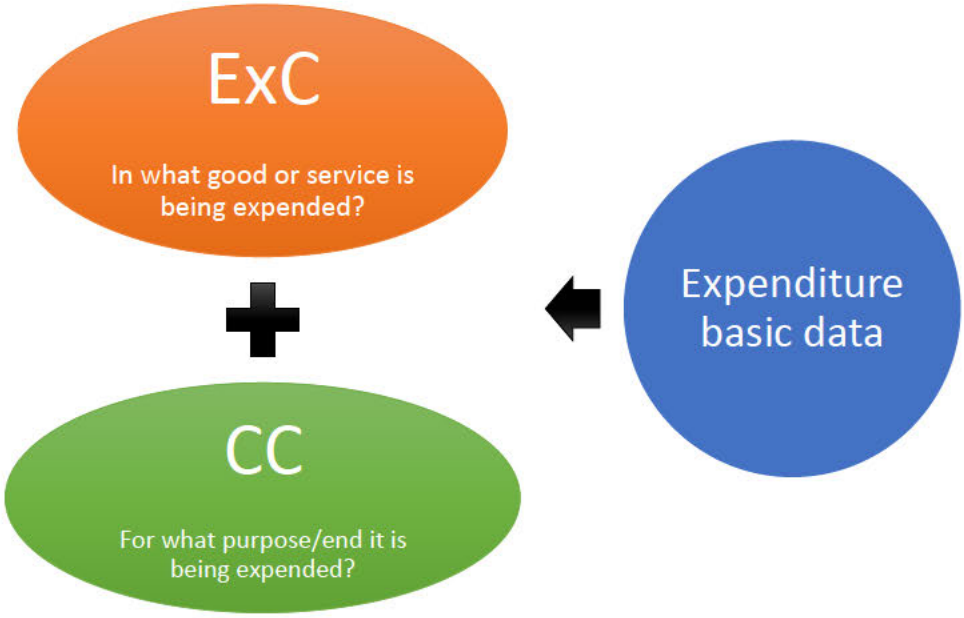
To address this, the methodology also considers **Cost Centers (CCs)**, which group expenditures by their operational purpose or function. The NWC maintains 1,374 predefined CCs, each representing a specific set of activities related to the delivery of water or wastewater services. Understanding the relationship between ExCs and CCs is critical for ensuring accurate assignment of costs to the appropriate service or function.

This methodology is defined by several key attributes:

- **Replicability** – it can be consistently applied to future cost assessments using standardized procedures;
- **Verifiability** – it allows outputs to be traced back to source financial data for validation;
- **Adaptability** – it accommodates changes in operational structure or financial systems, including the integration of new CCs or ExCs.

This robust framework provides a clear, flexible, and accurate basis for allocating costs and supporting long-term financial planning and tariff design.

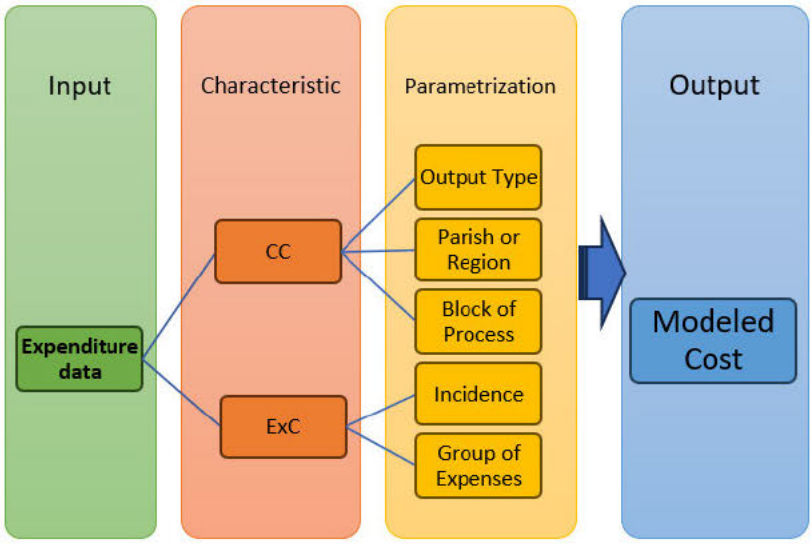
Figure 1: Expenditure Data Relationship between ExC and CC



Source: Elaborated by Consultant

Furthermore, the developed methodology not only facilitates the historical analysis of incurred costs but also serves as a foundation for projecting future estimates and economic-financial scenarios. Embedded within an Excel-based modeling tool, it allows for flexible adjustment of parameters to accommodate various assumptions and analytical needs.

Figure 2: NWC Expenditure Data Classification for Model



Source: Elaborated by Consultant

3.1.1. Expenditure Categories (ExC)

Although relatively straightforward in structure, the analysis of Expenditure Categories (ExCs) is thorough. Each ExC represents a distinct type of expenditure, and these categories can be grouped

and summarized to support varying levels of analytical detail. The financial information system assigns a unique identifier to each category, beginning with the letter "E" followed by a five-digit code.

The common characteristics in ExC descriptions inform two key aspects of the cost modeling process:

1. Grouping of Expenditure Categories

To streamline the analysis, individual ExCs are grouped into broader categories. A total of 19 expenditure groups were defined in consultation with the NWC and incorporated into the cost model:

Table 9: Grouped Expenditure Categories (ExC)

Group of Expenses	
1	Amortization & Depreciation
2	Bad Debt
3	Commissions
4	Concession
5	Contracted Services
6	Electricity
7	Employee Costs
8	Financial Expenses
9	Gas & Fuels
10	Income Tax & Adjustments
11	Insurances
12	Materials
13	Other
14	Pensions
15	PPP
16	Public Services
17	Purchase of Water
18	Security
19	Supplies

Source: Elaborated by Consultant

The model allows for dynamic parameterization, meaning that broader or more detailed groupings can be created at any time to suit specific analytical needs.

2. Classification by Tariff Impact

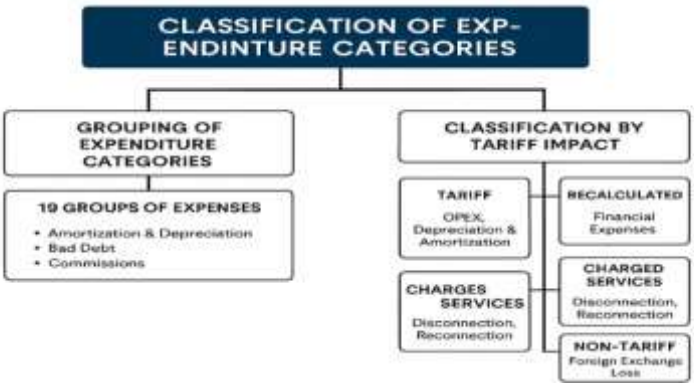
Each ExC is also assessed for its relevance to tariff determination. Based on its nature, an expense is classified as one of the following:

- **Tariff** – Includes all cost components that form part of the revenue requirement (RR) and are used in tariff calculations, namely:
  - Operating Expenditures (OPEX), and
  - Depreciation & Amortization.
- **Recalculated** – Refers to expenses that need to be specifically recalculated according to the methodology of cost estimation or projection for the revenue requirement. These typically include loan interest, financial charges, taxation, and deferred tax items.

- **Charged Services** – Covers specific services offered by the NWC (e.g., disconnection, reconnection, and new connections) that are billed separately and thus excluded from the tariff base.
- **Non-Tariff** – Consists of other expenses that are not factored into the RR, including realized foreign exchange gains or losses and prior period adjustments.

This dual-layered structure not only enables comprehensive identification and tracking of total expenditures but also clearly distinguishes which elements should be included in the revenue requirement for tariff-setting purposes. The methodology is adaptable and can accommodate new classifications or aggregation levels as future needs arise.

Figure 3: Classification of NWC ExC into Grouped Expenses and Tariff Impact



Source: Elaborated by Consultant

3.1.2. Cost Centers (CCs)

The analysis of Cost Centers (CCs) is also thorough and relatively complex, due to the wide variation among them and the need to assign multiple attributes or dimensions to each. In the company's financial information system, every CC is identified by a unique code consisting of four letters followed by four numbers, along with a descriptive name.

Each CC is first classified according to one of three output types—Water, Wastewater, or Overhead—and further distinguished based on whether it is tied to a specific service or represents shared costs. Unless otherwise specified, any CC that supports both water and wastewater operations is categorized as Overhead. The cost model, grounded in historical, verified, and audited information, ensures greater clarity and consistency in the allocation of costs.

The second key attribute is geographical allocation. Each CC is associated with either a specific parish or a group of parishes—often originally defined based on geographic relevance. For CCs spanning multiple parishes, an apportionment indicator—based on the number of active accounts during the period—was developed in consultation with the NWC. This indicator informs the distribution of costs across grouped parishes and is reflected in the apportionment table below.

Table 10: Apportionment ratios among groups of parishes

Group_NEW	Parish	%
CLAR	Clarendon	100.0%
HANO	Hanover	100.0%
Hanover/Westm	Hanover	35.1%
Hanover/Westm	Westmorelan	64.9%
KSTA	KSA	100.0%
KSA	KSA	100.0%
KSA/St. Thomas	KSA	88.5%
KSA/St. Thomas	St. Thomas	11.5%
MANC	Manchester	100.0%
Manchester/St. I	Manchester	49.5%
Manchester/St. I	St. Elizabeth	50.5%
PORT	Portland	100.0%
St. Andrew	St. Andrew	100.0%
STAN	St. Ann	100.0%
STCA	St. Catherine	100.0%
St. Catherine/Cl	Clarendon	21.4%
St. Catherine/Cl	St. Catherine	78.6%
STEL	St. Elizabeth	100.0%
STJA	St. James	100.0%
STMA	St. Mary	100.0%
St. Mary/Portlan	Portland	38.0%
St. Mary/Portlan	St. Mary	62.0%
STTO	St. Thomas	100.0%
TREL	Trelawny	100.0%
St. James/Trelaw	St. James	73.9%
St. James/Trelaw	Trelawny	26.1%
WESTM	Westmorelan	100.0%

Group_NEW	Parish	%
CORP	Clarendon	6.7%
CORP	Hanover	2.3%
CORP	KSA	25.1%
CORP	Manchester	4.0%
CORP	Portland	2.7%
CORP	St. Ann	5.8%
CORP	St. Catherine	24.5%
CORP	St. Elizabeth	4.1%
CORP	St. James	9.4%
CORP	St. Mary	4.4%
CORP	St. Thomas	3.3%
CORP	Trelawny	3.3%
CORP	Westmorelan	4.3%
East	Clarendon	9.2%
East	KSA	34.6%
East	Portland	3.8%
East	St. Ann	8.1%
East	St. Catherine	33.7%
East	St. Mary	6.1%
East	St. Thomas	4.5%
West	Hanover	8.5%
West	Manchester	14.7%
West	St. Elizabeth	15.0%
West	St. James	34.1%
West	Trelawny	12.0%
West	Westmorelan	15.6%

Source: Elaborated by Consultant

When an expenditure is linked to a group of parishes, the model distributes the total amount according to the established ratios for each parish.

Finally, each CC is associated with a Block of Process, which represents a third functional dimension. This classification identifies operational activities or tasks related to service provision. Seven process blocks were created for this purpose, and these may be adjusted over time to accommodate evolving modeling needs or refinements in cost allocation parameters.

Table 11: Operational Process Description

Block_of_Process	Description
ADMIN	Administrative tasks and processes
COLL	Collection of wastewater processes, includes maintenance
CUST	Customer care and tasks
REV	Reveneu collection tasks
TREAT	Treatment of wastewater processes, includes maintenance
WDIS	Water distribution tasks, includes maintenance
WPROD	Water production tasks, includes maintenance

Source: Elaborated by Consultant

3.1.2.1. Comparative Analysis of Alternate Apportionment Ratios

As previously mentioned for Cost Centers (CCs) spanning multiple parishes, an apportionment indicator—based on the number of active accounts during the period—was developed and applied. However, alternative methods for geographically assigning costs were also evaluated. This section presents the findings of that comparative analysis.

Four alternative variables were considered as potential proxies for allocating costs instead of using the number of active accounts. Their characteristics are outlined below:

1. Percentage of Gross Asset Base (for the test year):
   This method apportions costs based on the estimated gross asset value per parish. The assessment revealed notable limitations: while assets are distributed across parishes, some major asset groups were not specifically allocated to a parish, necessitating the use of NWC ratios for estimation, thereby introducing circularity. Additionally, many assets were centralized at NWC's headquarters in Kingston, significantly skewing the results.
2. Percentage of Electricity Expenses (for the test year):
   This method allocates costs based on each parish's share of total electricity expenses. However, it is constrained by heterogeneous electricity pricing across facilities and regions. Furthermore, certain facilities serve multiple parishes, leading to potential biases. Also, 2.15% of electricity costs relate to CCs encompassing multiple parishes, again requiring NWC ratios and introducing minor circularity.
3. Percentage of Water Consumption (for the test year):
   This approach uses the volume of water consumption estimated by the technical model for each parish. However, consumption patterns vary significantly across parishes, introducing bias into the allocation results.
4. Percentage of Employee Costs (for the test year):
   A fourth variable—employee cost per parish—was also considered to explore an alternative distribution based on workforce-related expenses.

The apportionment ratios derived from each method are summarized in the table below:

Table 12: Apportionment ratios of costs among parishes

Parish	NWC ratios	% of Gross Asset Base (JMD)	% of Electricity cost	% Water Consumption	% of Employee Cost
Clarendon	8.0%	3.9%	7.6%	5.3%	6.4%
Hanover	3.0%	3.3%	3.8%	2.6%	2.4%
Kingston	23.0%	46.9%	10.7%	35.5%	32.9%
Manchester	5.0%	3.5%	12.0%	2.9%	5.2%
Portland	3.0%	2.0%	2.0%	1.9%	2.5%
St. Ann	5.0%	3.6%	5.4%	5.6%	5.4%
St. Catherine	22.0%	10.6%	18.9%	19.8%	17.5%
St. Elizabeth	5.0%	3.8%	7.8%	3.1%	4.3%
St. James	9.0%	7.0%	14.5%	10.1%	6.8%
St. Mary	5.0%	4.5%	4.9%	3.6%	4.9%
St. Thomas	4.0%	2.5%	3.7%	2.6%	4.4%
Trelawny	3.0%	4.5%	5.7%	2.9%	2.6%
Westmoreland	5.0%	4.0%	3.2%	4.1%	4.8%

Source: Elaborated by Consultant

Considering the comparative results and the availability of reliable data for each method, the apportionment ratios provided by NWC based on active accounts appear to offer a reasonable and balanced allocation of costs among parishes.

3.1.3. Basic Expenditure Data

Based on the financial information provided by the NWC, a framework was developed to incorporate such data in the modeling application in alignment with the described methodology.

For each period of historical data, a dataset is created in Excel format, capturing expenses from the financial system. Each record provides a breakdown of the corresponding amounts allocated to **Water**, **Wastewater**, and **Total** costs.

Table 13: Historical Data (Sample)

Cost Centre (CC)	Expenditure Category (ExC)	Water	Wastewater	Total
CCE60000	E10800	142,332.33	40,145.01	182,477.34
CCE60010	E30101	38,803,385.17	10,944,671.46	49,748,056.63
CCE60010	E30101	38,503,396.92	10,859,922.46	49,363,329.38
CCED6100	E30101	16,239,542.05	4,580,383.36	20,819,925.71
CCEP6020	E30101	20,678,205.20	5,833,214.29	26,511,419.49
CCH60000	E30101	6,349,298.04	1,803,519.96	8,197,818.00
CFA60000	E30101	11,843,993.27	3,240,643.19	15,184,636.46
CFAA6200	E30101	19,682,895.65	5,551,585.95	25,234,481.60
CPWS2102	E30101	4,852,167.69	0.00	4,852,167.69
CPWS2300	E30101	2,141,391.69	0.00	2,141,391.69
CPWS6000	E30101	1,034,163.62	0.00	1,034,163.62
CPWW5101	E30101	0.00	5,067,057.69	5,067,057.69
CPWW5320	E30101	0.00	1,304,369.66	1,304,369.66
CPWW5525	E30101	0.00	4,660,408.18	4,660,408.18
ECAC5525	E30101	0.00	2,152,893.73	2,152,893.73

[redacted]

Source: Elaborated by Consultant

Each line is apportioned into Water Costs and Wastewater Costs based on fixed allocation rates defined per Cost Centre, using the number of active accounts as the main allocation driver. Additional considerations in the apportionment process are outlined below:

3.1.3.1. Water Service Only

1. All maintenance personnel are strictly assigned to either water or wastewater; so, cost is separated into 100% water cost for water service only, and 100% wastewater cost for wastewater service only.
2. All customer service field personnel deal strictly with water accounts, so the cost is apportioned 100% to water cost. Wastewater issues are addressed only by wastewater personnel.
3. Chlorination teams work in both water and wastewater disinfection, so costs are separated as per Water/Wastewater account in those parishes.
4. All other Water Service Only expenses are apportioned 100% Water Expenses.

3.1.3.2. Wastewater Service Only

1. Wastewater solely costs are assigned to Wastewater Service Only.
2. WWTP Soapberry is included in KSA Parish.

3.1.3.3. Overheads

1. Grounds maintenance is assigned to KSA even when the cost center code indicates KSAT (EKT67000). In otherwords, grounds maintenance for St. Thomas is assigned to KSA.
2. Grounds maintenance concern both water and wastewater facilities so costs are apportioned according to Water/Wastewater Accounts ratio for those parishes
3. Personnel and cost in Corporate Services are apportioned based on the costs of Water to Wastewater Employees provided by NWC in cost files.
4. Unaccounted for Water/Leak Detection Overheads are Water Services Only (100% Water Apportionment).
5. The CReW Project Overheads are Wastewater Services Only (100% Wastewater Apportionment).

3.1.4. Identification of Discrete Cost Element

A total of 19 groups were defined and are captured in the costs model.

[redacted]

Table 14: Grouped Expenditure Categories (ExC)

Group of Expenses	
1	Amortization & Depreciation
2	Bad Debt
3	Commissions
4	Concession
5	Contracted Services
6	Electricity
7	Employee Costs
8	Financial Expenses
9	Gas & Fuels
10	Income Tax & Adjustments
11	Insurances
12	Materials
13	Other
14	Pensions
15	PPP
16	Public Services
17	Purchase of Water
18	Security
19	Supplies

Source: Elaborated by Consultant

3.1.5. Functional Cost Allocation

The functional allocation of costs helps determine the expenses associated with each of the company's main operational processes. It involves breaking down broader processes into sub-processes to trace the costs incurred within each production chain.

This allocation is supported by the definitions outlined above.

As the cost datasets and supporting documentation provided by the NWC did not include an explicit mapping of categories for functional cost allocation, the consulting team developed a functional scheme based on the identification of three main process groups:

1. **O&M** (Operations and Maintenance): Costs associated with CCs focused on operation and maintenance activities related to water and sewerage services.
2. **CUST** (Customer Services): Costs associated with CCs focused on customer service activities, including billing and customer engagement for water and sewerage services.
3. **ADMIN** (Administration): Costs associated with CCs focused on general administrative activities across the organization.

The consulting team further identified sub-processes within two of the groups, based on CC descriptions and consultations with NWC staff. For the third group, ADMIN, although the team proposed potential sub-processes, the descriptions of the associated CCs did not support a meaningful breakdown. As a result, no sub-process breakout was applied for this group in the context of this consultancy.

- **O&M Group:**

- WPROD: CCs related to Water Production (production and treatment).
- WDISTR: CCs related to Water Distribution
- COLL: CCs related to Wastewater Collection.
- TREAT: CCs related to Wastewater Treatment.

- **Customer Services Group (CUST):**
  - CUST: General customer service activities, including billing and service management
  - REV: Revenue collection activities

The functional definitions adopted for modeling the 1,374 existing CCs were based on the consulting team's proposals, reviewed and validated by NWC. The distribution of CCs across groups and processes is shown below:

Table 15: CCs linked to Operational Processes

Group	Process	CCs linked
Admin	ADMIN	172
Custom	CUST	144
	REV	14
O&M	COLL	94
	TREAT	209
	WDIS	82
	WPROD	659
TOTAL		**1,374**

Source: Elaborated by Consultant

Overall, the relationship between CCs, operational processes, and groups was developed based on the descriptions provided in the datasets and supporting documentation, with corrections and adjustments made in consultation with NWC. The modeling tool developed in Excel includes a practical section for managing the parameterization of each CC and ExC.

Finally, it should be noted that the adjusted model was reconciled against the figures from the Unaudited Financial Statements 2026, with positive results. Therefore, it can be considered a reliable basis for subsequent cost analysis.

4. Applicable Tariff Regime: Price Cap

The regulatory framework historically applied by the Office of Utilities Regulation (OUR) to the National Water Commission (NWC) is based on a Price Cap regime, supported by a test-year Cost of Service approach for establishing the initial Revenue Requirement and tariff level.

4.1. Cost of Service versus Price Cap Regulation

Under traditional Cost of Service or Rate of Return regulation, tariffs are established at a level intended to allow the regulated utility to recover the efficient and prudent costs of providing the service. The Revenue Requirement (RR) typically includes operating expenditure, depreciation, and an allowed return on the Regulatory Asset Base (RAB), together with the applicable OPEX regulatory adjustments described in detail in 5.4.1.3.1.

Conceptually:

$$\boldsymbol{RR = Efficient\ OPEX + Depreciation + Allowed\ Return \pm Regulatory\ Adjustments}$$

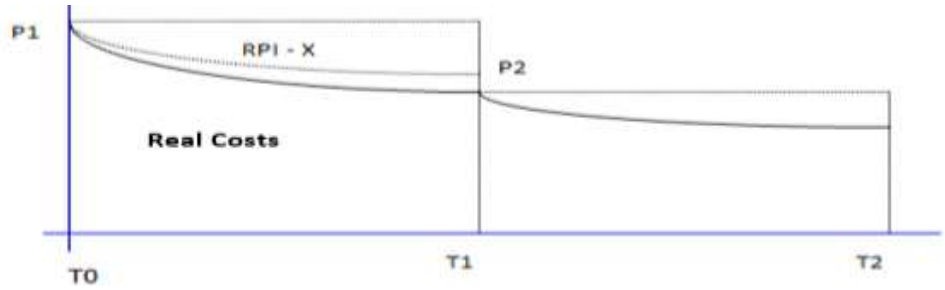
The tariff structure is then designed so that expected tariff revenues are sufficient to recover the approved RR.

This approach provides a direct link between the utility's underlying cost base and the revenues it is allowed to recover. However, where tariffs are frequently reset to reflect actual costs, the utility may have relatively weak incentives to reduce expenditure, since part or all of the benefit from cost savings may be passed relatively quickly to customers through lower allowed revenues or tariffs.

Price Cap regulation was developed to strengthen these efficiency incentives. Rather than continuously resetting tariffs to actual costs, the regulator establishes an initial tariff level and a mechanism governing tariff evolution over a defined regulatory period. The utility is then generally permitted to retain, for a period, the financial benefits arising from efficiency improvements beyond those assumed by the regulator.

The following figure illustrates this mechanism.

Figure 4: Price Cap Mechanism



Source: Elaborated by Consultant

At the beginning of the regulatory period (T0), the regulator establishes the initial price level, P1, through the tariff review process. This price remains in effect until T1, subject to the applicable adjustment mechanisms. During the regulatory period, the utility has an incentive to reduce its costs and retain the resulting efficiency gains. A portion of the expected efficiency gains is passed to customers in advance through an efficiency factor, known as the X Factor. At the end of the period, at T1, tariffs are recalculated through a new tariff review process. The efficiencies achieved during the previous period are then reflected in the new tariff level, P2, which remains applicable until T2.

The approach therefore seeks to replicate some of the incentives that would normally arise in a competitive market. If the utility can provide the required level of service at a lower cost than assumed in the regulatory determination, it benefits from the resulting efficiency gains during the tariff period. At the subsequent tariff review, those efficiencies can be reflected in the cost base used to establish the new tariff level, thereby allowing customers to share the benefits over time.

A central element of a Price Cap regime is therefore the X Factor, which reflects the productivity and efficiency improvements that the regulator expects the utility to achieve. The X Factor transfers an expected level of efficiency gains to customers in advance while preserving an incentive for the utility to outperform the regulatory target.

The X Factor should be set at a level that represents a reasonable and achievable efficiency challenge. If it is set too low, customers may not receive an appropriate share of expected productivity gains. Conversely, if it is set too high, the resulting tariff trajectory may prevent the utility from recovering the efficient cost of service, earning its allowed return, or financing the investments required to maintain and improve service quality.

4.2. Application to NWC

In the case of NWC, the historical regulatory framework has combined elements of both approaches.

The Cost of Service methodology provides the basis for establishing the initial Revenue Requirement and tariff level, while the **Price Cap framework governs the evolution of tariffs during the tariff period through predefined adjustment and incentive mechanisms**.

This combined approach is consistent with OUR's historical tariff determinations for NWC. In previous tariff reviews, OUR has assessed the Commission's underlying cost requirements and Revenue

Requirement while simultaneously applying mechanisms such as the Price Adjustment Mechanism (PAM), the K Factor and the X Factor. In its 2008 Determination, for example, OUR established a tariff regime incorporating PAM and approved K- and X-Factor schedules, while also assessing NWC's underlying revenue and cost requirements. OUR determined that the tariff regime would remain in place for five years.

The same regulatory architecture was evident in the 2013–2018 tariff period. NWC's tariff submission explicitly distinguished between the **initial tariff reset required to recover the cost of service** and the mechanisms governing tariffs thereafter, including the K and X Factors. Under one of the scenarios considered, the opening tariff was established to recover the full cost of service, while subsequent real tariff reductions were achieved through X Factor as efficiency gains materialised.

The five-year nature of the tariff period was also confirmed in the 2013 Determination and subsequent Mid-Term Review, in which OUR retained the ability to review the K- and X-Factor schedules during the tariff period to ensure that regulatory cash flows and financing requirements remained appropriately aligned.

This framework continued to be reflected in the 2019 tariff review. NWC requested a reduction of the Price Cap tariff period from five years to three years, while OUR concluded that a full five-year tariff determination required, among other inputs, an adequate Cost of Service Study and a credible five-year financial plan. This reinforces the complementary nature of the Cost of Service assessment and the Price Cap framework within NWC's regulatory regime.

Under the methodology proposed for the present tariff review, this regulatory structure is maintained and clarified.

The **initial Revenue Requirement and tariff adjustment are determined using a Base Year/Test Year approach**. The Base Year provides the regulatory reference for assessing efficient operating expenditure, depreciation, the Regulatory Asset Base and the allowed return, based on the economic and market conditions prevailing during that year.

A separate **forward-looking analysis** is used to support NWC's Business Plan and to assess the financial and operational implications of the tariff determination over the five-year tariff period. This analysis incorporates projected capital expenditure, demand, operating costs, revenues and financial performance and supports the determination of the K Factor and X Factor.

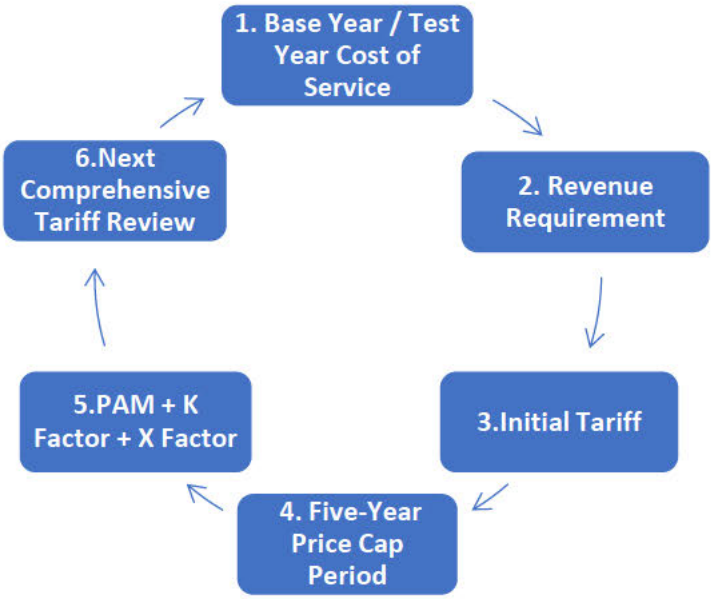
Once the initial tariff level has been established, tariffs evolve during the five-year tariff period through the applicable regulatory mechanisms:

- the **Price Adjustment Mechanism (PAM)**, which reflects movements in specified exogenous cost drivers, including electricity costs, the Consumer Price Index (CPI) and foreign exchange (FX);
- the **K Factor**, which provides additional tariff revenues associated with approved investment requirements; and

- the **X Factor**, which reflects the efficiency and productivity improvements expected from NWC during the tariff period.

The regulatory framework can therefore be summarized in the next figure:

Figure 5: Regulatory Framework Summary



Source: Elaborated by Consultant

At the subsequent comprehensive tariff review, the Revenue Requirement and tariff level are reassessed using an updated Base Year. Efficiency improvements achieved during the preceding period may therefore be reflected in the new cost base and tariff level, allowing customers to benefit from productivity improvements while preserving incentives for NWC to outperform the regulatory assumptions during the tariff period.

The Price Cap framework applied to NWC therefore seeks to:

- protect customers from the exercise of monopoly power;
- ensure recovery of the efficient and prudent cost of providing water and wastewater services;
- provide NWC with incentives to improve operational efficiency and productivity;
- allow NWC to retain, during the tariff period, part of the benefits arising from expected efficiency gains beyond those assumed by the regulator;
- share expected efficiency gains with customers through the X Factor;
- provide for the recovery of approved investment requirements through the K Factor;
- protect both customers and the utility from movements in specified exogenous cost drivers through the PAM;

- reduce the need for frequent comprehensive Cost of Service reviews during the five-year tariff period; and
- replicate, to the extent possible, the incentives for cost reduction and productivity improvement that would exist in a competitive market.

The following sections describe the methodology and individual components used to determine NWC's Revenue Requirement and the corresponding tariff adjustment under the Base Year approach, together with the proposed methodologies for the PAM, K Factor, X Factor and Extraordinary Reviews.

5. Revenue Requirement and Tariff Adjustment Methodology

Following the regulatory framework described in Section 4, this section sets out the methodology used to determine NWC's Revenue Requirement (RR) and the corresponding tariff adjustment for the Ordinary Tariff Review (OTR).

For the present tariff review, the tariff determination is based on a Test-Year approach, with the selected Base Year serving as the Test Year. Accordingly, the initial tariff adjustment is determined by comparing the Revenue Requirement for the Base Year with the revenues that NWC would generate in that same year under the tariffs in force at the time of the review.

The Revenue Requirement represents the level of revenue required for NWC to recover the efficient and prudent costs associated with the provision of water and wastewater services. It comprises efficient operating expenditure, depreciation and an allowed return on the Regulatory Asset Base, together with any other regulatory adjustments considered applicable.

The Revenue Requirement for the Test Year is calculated on a full-cost-recovery basis as follows:

$$RR_t = OPEX_t + (GRAB_{t-1} \times DEP\%) + (NRAB_{t-1} \times WACC)$$

Where:

- RR_t: is the Revenue Requirement for the Test Year.
- $OPEX_t$: is the total efficient cost of operation and maintenance, customer service, and administration required to provide water and wastewater services in the Test Year. The methodology for calculating operating costs and results is presented in section 5.4.
- $GRAB_{t-1}$: is the Gross Regulatory Asset Base at the end of the preceding year. It represents the gross value of operating assets owned by NWC that have not been fully depreciated and are used to provide water supply, wastewater, customer service, and administrative services. The calculation of the Gross Regulatory Asset Base[3] is included in section 6.2.1 and 6.2.5.
- $DEP\%$: is the depreciation rate, determined according to the useful life of each asset category. The term $GRAB_{t-1} \times DEP\%$represents the annual depreciation allowance.

[3] The valuation of the initial regulatory asset base (RAB)- which serves as the foundation for incorporating future investments and calculating both gross and net asset base figures for the tariff period- was conducted using a physical approach that is essential for accurately estimating the true cost of capital involved in service provision under the WACC methodology. This approach aligns with the guidelines outlined in the Regulatory Framework for the National Water Commission, 2008–2013, published by the Office of Utilities Regulation (OUR). According to this document: "**The NWC shall continue to reflect a fair market value for assets used in the provision of utility services and update their value on an annual basis**." For the present study, information on the detailed replacement value/fair market value of fixed assets—expressed in current Jamaican dollars (JMD) as of March 31, 2022—was provided by NWC. This valuation was conducted by Ernst & Young (EY) as part of Provision of Consultancy Services for Depreciation Rate Study & Asset Valuation initiative.

$\boldsymbol{NRAB_{t-1}}$: is the Net Regulatory Asset Base at the end of the preceding year. It represents the net value of the operating assets used in the provision of water and wastewater services and related customer service and administrative activities.

$\boldsymbol{WACC}$: is the Weighted Average Cost of Capital, expressed in real pre-tax terms.

The term $NRAB_{t-1} \times WACC$represents the allowed return on the capital invested in regulated assets. The WACC calculation can be found in Section 6The corresponding Verified Revenue (VR) is calculated by applying the tariffs in force at the time of the tariff review to the billed demand associated with the Test Year.

The OTR tariff adjustment is then determined by comparing the Test-Year Revenue Requirement with the corresponding Verified Revenue. **The resulting adjustment represents the change required in the prevailing tariff level to align expected tariff revenues with the approved cost of service for the Base Year.**

All monetary values used for the tariff determination are expressed in real terms. Movements in prices and other specified exogenous cost drivers during the tariff period are addressed separately through the Price Adjustment Mechanism (PAM), as described in Section 6.7.

In addition to the Test-Year tariff determination, the Tariff and Financial Model includes a forward-looking module covering the five-year tariff period. This forward-looking analysis does not determine the initial OTR tariff adjustment. It is used to support NWC's Business Plan and financial projections and forms the basis for determining the K Factor and X Factor applicable during the five-year tariff period.

The following subsections describe the Base Year, the individual components of the Revenue Requirement, the resulting tariff adjustment, and the forward-looking analyses supporting the regulatory mechanisms applicable during the five-year tariff period.

5.1. Test-Year Tariff Determination

Under the methodology adopted for the present tariff review, the Base Year serves as the Test Year for determining the initial tariff adjustment.

The assessment is therefore based exclusively on the costs, Regulatory Asset Base, depreciation, allowed return, billed demand and Verified Revenue corresponding to the Base Year. Costs, investments, demand and revenues arising in subsequent years of the tariff period are not incorporated into the calculation of the initial OTR tariff adjustment.

The Verified Revenue for the Test Year is calculated by applying the tariffs in force at the time of the tariff review to the billed volumes corresponding to the Base Year.

The tariff adjustment is determined as follows:

$$\boldsymbol{OTR_{TY} = \frac{RR_{TY}}{VR_{TY}} - 1}$$

where:

- $\boldsymbol{OTR_{TY}}$ is the tariff adjustment resulting from the Ordinary Tariff Review;
- $\boldsymbol{RR_{TY}}$ is the Revenue Requirement for the Test Year (see Section 5) ; and
- $\boldsymbol{VR_{TY}}$is the Verified Revenue calculated for the same Test Year. The VR for the TY is calculated by applying current tariffs to the billed demand projected for that year:

$$\boldsymbol{VR_{TY} = T_{current} \times Vol_{TY}}$$

Where $VR_{TY}$is the VR for the selected Test Year and Vol_{TY}represents the billed volumes projected for each customer category and consumption block in that year.

A positive result of OTR indicates that revenues generated under the prevailing tariff are insufficient to recover the approved Revenue Requirement, while a negative result indicates that prevailing tariffs would generate revenues above the calculated Revenue Requirement.

This approach establishes the initial tariff level applicable at the beginning of the five-year Price Cap period.

5.2. Forward-Looking Analysis

In addition to the Test-Year assessment used to determine the initial tariff adjustment, a forward-looking analysis is undertaken over the five-year tariff period.

The forward-looking analysis does **not determine the initial OTR tariff adjustment**, which is established exclusively on the basis of the Base Year/Test Year. It nevertheless forms an integral part of the overall regulatory assessment, as it supports NWC's Business Plan, financial projections, investment programme, and the determination of the K Factor and X Factor applicable during the tariff period.

For this purpose, the Tariff and Financial Model projects the main operational, financial and regulatory variables over the five-year tariff period, including demand, billed volumes, operating expenditure, capital expenditure, the Regulatory Asset Base, revenues and financial performance.

For the determination of the **X Factor**, two forward-looking cost trajectories are developed:

- a **Base or No-Efficiency projection**, reflecting the expected evolution of operating costs based on the applicable cost drivers without incorporating the efficiency gains associated with the investment programme and operational improvement measures; and
- an **Efficient projection**, incorporating the expected cost reductions and productivity improvements associated with efficiency measures, including, among others, reductions in Non-Revenue Water (NRW), improvements in energy efficiency, workforce productivity and collection performance.

The difference between these two projected trajectories represents the efficiency gains expected to be achieved by NWC during the tariff period and provides the basis for determining the X Factor. The

X Factor therefore allows an appropriate share of these expected efficiency gains to be reflected in tariffs during the Price Cap period.

The forward-looking analysis is also used to assess the capital investment programme and associated financing requirements underlying the **K Factor**, as well as to evaluate the projected financial sustainability of NWC under the proposed tariff determination.

Accordingly, **while the Test-Year methodology establishes the initial tariff level, the forward-looking analysis supports the determination of the regulatory mechanisms governing tariff evolution and NWC's financial and operational performance throughout the five-year tariff period.**

5.3. Base Year

This Cost of Service Study uses the latest financial and operational information available for the fiscal year ended March 2026, as provided by NWC for the purposes of this tariff review, as the reference period or Base Year.

This information represents the most current available view of NWC's costs, assets, activities and operating conditions and forms the basis for the Cost of Service and Revenue Requirement calculations.

In accordance with the arrangements agreed between NWC and OUR for the purposes of this review, NWC's trial balances may be used as the primary source of financial information supporting the Base Year calculations. Accordingly, the Base Year financial information is not derived from audited financial statements. However, the underlying financial information and trial balances have been subject to an extensive internal review and validation process by NWC prior to their submission and use in the Cost of Service Study.

5.4. OPEX

To determine the OPEX to be included in the Cost of Service, the Consultant used NWC's Management Accounts as the primary source of information to establish the operating expenditure for the base year.

For purposes of this report, the terms Base Year and Test Year refer to FY 2025–2026 and are used interchangeably.

Starting from the accounting OPEX reported by NWC, a series of regulatory adjustments were subsequently applied to determine the regulatory OPEX for the test year. These adjustments are intended to translate the costs reported from an accounting perspective into the expenditure base considered appropriate for regulatory purposes and for inclusion in the Cost of Service.

The resulting regulatory base-year OPEX constitutes the starting point for the projection of operating expenditures over the tariff period. Each cost component is projected individually based on the applicable cost drivers and other specific assumptions described in the following sections.

The subsections below outline the approach used to define the baseline OPEX and their projection.

5.4.1. Test Year OPEX

5.4.1.1. Accounting Test Year OPEX

Building on the methodology described above, a detailed analysis of NWC's operating expenses was carried out to establish the accounting OPEX for the test year, which constitutes the starting point for determining the operating expenditure to be included in the Revenue Requirement.

To set up the financial model, expenses were segregated according to water and wastewater specific allocation, and overhead common expenses. This result is driven by the affiliation of each cost center (CC) with a specific allocation specification.

Also, a separate result was obtained by considering OPEX allocation between Water and Wastewater (no common overhead costs), by Parish. This was driven by the allocation of each Expenditure Categories (ExC) and CC provided by NWC for each financial year's expenses.

[redacted]

Table 16: Total OPEX apportioned by Parish and Category of expense, test year, in % of total OPEX.

	Total	
Total	42,665,706,830	
Bad Debt	904,491,106	2.1%
Chemicals	313,075,000	0.7%
Comissions	254,896,795	0.6%
Concession	63,631,191	0.1%
Contracted Services	3,964,665,984	9.3%
Electricity	10,129,169,239	23.7%
Employee Costs	14,654,076,606	34.3%
Gas & Fuels	317,304,641	0.7%
Insurances	1,134,461,529	2.7%
Materials	2,576,976,932	6.0%
Other	1,679,185,222	3.9%
Pensions	3,578,556,974	8.4%
PPP	1,372,349,916	3.2%
Public Services	159,473,006	0.4%
Purchase of Water	523,772,762	1.2%
Security	1,039,619,927	2.4%

[redacted]

Source: Elaborated by Consultant with NWC´s information

[redacted]

Table 17: Total OPEX broken down by Category, by Parish and block of process, test year, current JMD.

[redacted]

Source: Elaborated by Consultant with NWC´s information

[redacted]

5.4.1.2. *Hurricane-related OPEX incorporated into the Accounting OPEX*

Hurricane-related expenditures were incorporated into the Accounting OPEX presented in the previous section. These expenditures were identified separately based on information provided by NWC and amounted to approximately JMD 471.7 million, representing approximately 1% of total Accounting OPEX (See Annex: OPEX associated to hurricanes).

These costs were retained in Regulatory OPEX because they reflect actual expenditures required to maintain and restore service following severe weather events. Their impact on total OPEX is not material, and given Jamaica's exposure to hurricanes, their inclusion provides a more representative view of the operating conditions faced by NWC.

Table 18: Hurricane-Related Base Year OPEX by Cost Component

		2025-2026
Cost	Unit	Base Year
Contracted Services	JMD	959,350
Employee Costs	JMD	913,676
Gas & Fuels	JMD	19,408
Materials	JMD	5,489,037
Other	JMD	460,192,766
Security	JMD	4,216,347
Total	**JMD**	**471,790,584.40**

Source: Tariff & Financial Model

5.4.1.3. *Regulatory Adjustments to Test Year OPEX*

The OPEX allocation described above constituted the starting point for the Tariff and Financial Model. For modelling purposes, and consistently with the allocation methodology described in the previous section, Test Year OPEX was organized according to the following dimensions:

- **Currency:** Jamaican dollars (JMD).
- **Parish:** Clarendon, Hanover, Kingston, Manchester, Portland, St. Ann, St. Catherine, St. Elizabeth, St. James, St. Mary, St. Thomas, Trelawny, and Westmoreland.
- **Process:** Operations and Maintenance (O&M), Administration, and Customer Service.
- **Cost type:** Bad Debt, Chemicals, Commissions, Concession, Contracted Services, Electricity, Employee Costs, Gas and Fuels, Insurance, Self-Insurance, Materials, Other Costs, Pensions, Public Services, Purchase of Water, Security, and Public-Private Partnerships (PPP).
- **Service:** Water (W), Wastewater (WW), or shared Water and Wastewater costs (W+WW), as identified in the Tariff and Financial Model.

[redacted]

5.4.1.3.1. Regulatory Adjustments

Starting from the Accounting OPEX described above, specific regulatory adjustments related to known and measurable items were applied to selected cost components to determine the level of OPEX to be recognized for Cost of Service purposes.

The application of these adjustments resulted in an increase from approximately JMD 43.14 billion of Accounting OPEX to JMD 52.27 billion of Regulatory OPEX, representing an overall increase of approximately JMD 9.13 billion, or 21.2%.

The regulatory adjustments were concentrated in four cost components: Employee Costs, Bad Debt, PPP, and Self-Insurance. All other OPEX components were maintained at their accounting values.

[redacted]

[redacted]

[redacted]



[redacted]

Regulatory OPEX is primarily composed of Employee Costs, Electricity, PPP costs, Contracted Services, Pensions, Bad Debt, Materials, and Other operating expenses. The remaining balance comprises insurance, security, purchased water, gas and fuels, chemicals, commissions, self-insurance, public services, and concession-related costs.

Table 20: Accounting and Regulatory Test Year OPEX by Cost Component

	Base Year 2025-2026	
Process	OPEX - Regulatory (JDM)	Share of Regulatory OPEX (%)
Custom	9,067,315,692	17.92%
O&M	26,815,464,237	52.99%
Admin	14,722,155,194	29.09%
Total	**50,604,935,123**	**100.00%**

Source: Tariff & Financial Model

When analyzed by process, O&M represents the largest share of Test Year OPEX, accounting for approximately 53% of total costs, followed by Administration at 29% and Customer Service at 28%. This distribution reflects the significant weight of costs directly associated with the operation and maintenance of NWC's water and wastewater systems.

5.4.2. OPEX Projection

Following the determination of Regulatory Test Year OPEX described in the previous section, the resulting cost base was used as the starting point for projecting operating expenditures over the five-year tariff period.

OPEX was projected at a disaggregated level, preserving the corresponding parish, process, cost component, and service allocation. Each cost component was projected using a specific cost driver or assumption intended to reflect the expected evolution of its underlying cost determinant.

5.4.2.1. Fixed and Variable Components

As part of the projection methodology, OPEX components were classified according to their cost behavior as fixed or variable. This classification supports the identification of the appropriate projection driver for each cost component.

The conceptual distinction between fixed and variable costs was informed by NWC's Tariff Submission 2018, which identifies electricity and chemicals as key variable costs in the operation of a water utility and recognizes that infrastructure and overhead-related expenditures are predominantly fixed in nature.

Given that individual operating cost components may exhibit different degrees of variability, the final classification was determined considering the nature of each expenditure, its underlying cost determinant, and the Consultant's sector experience.

Table 21: Classification of OPEX Components as Fixed or Variable

Process (cost center)	Concept	F/V	Process (cost center)	Concept	F/V	Process (cost center)	Concept	F/V
Admin	Bad Debt	Variable	Custom	Bad Debt	Variable	O&M	Bad Debt	Variable
Admin	Chemicals	Variable	Custom	Chemicals	Variable	O&M	Chemicals	Variable
Admin	Comissions	Fix	Custom	Comissions	Variable	O&M	Comissions	Variable
Admin	Concession	Fix	Custom	Concession	Fix	O&M	Concession	Fix
Admin	Contracted Services	Fix	Custom	Contracted Services	Variable	O&M	Contracted Services	Variable
Admin	Electricity	Fix	Custom	Electricity	Fix	O&M	Electricity	Variable
Admin	Employee Costs	Fix	Custom	Employee Costs	Fix	O&M	Employee Costs	Variable
Admin	Gas & Fuels	Fix	Custom	Gas & Fuels	Variable	O&M	Gas & Fuels	Variable
Admin	Insurances	Fix	Custom	Insurances	Fix	O&M	Insurances	Fix
Admin	Materials	Fix	Custom	Materials	Variable	O&M	Materials	Variable
Admin	Other	Fix	Custom	Other	Fix	O&M	Other	Fix
Admin	Pensions	Fix	Custom	Pensions	Fix	O&M	Pensions	Fix
Admin	Public Services	Fix	Custom	Public Services	Fix	O&M	Public Services	Variable
Admin	Purchase of Water	Variable	Custom	Purchase of Water	Variable	O&M	Purchase of Water	Variable
Admin	Security	Fix	Custom	Security	Fix	O&M	Security	Fix
Admin	PPP	Variable	Custom	PPP	Variable	O&M	PPP	Variable

Source: Elaborated by Consultant with NWC´s information

5.4.2.2. OPEX Projection Drivers

Starting from the adjusted Test Year OPEX, each cost component was projected over the tariff period using the specific drivers summarized below. The applicable driver may vary according to the process to which the expenditure is allocated (O&M, Customer Service or Administration).

The OPEX projections were developed under two scenarios:

- a **Base or No-Efficiency projection (**Without NRW Investments and Energy Efficiency**)**, reflecting the expected evolution of operating costs based on the applicable cost drivers without incorporating the efficiency gains associated with the investment programme and operational improvement measures; and
- an **Efficient projection (**With NRW Investments and Energy Efficiency**)**, incorporating the expected cost reductions and productivity improvements associated with efficiency measures, including, among others, reductions in Non-Revenue Water (NRW), improvements in energy efficiency, workforce productivity and collection performance.

The distinction between the two scenarios therefore applies only to those OPEX components whose underlying cost drivers are affected by NRW reduction and/or energy-efficiency measures. For all other cost components, the same projection assumptions are applied under both scenarios.

Table 22: OPEX Projection Drivers

Cost Component	Driver
Employee Costs	Number of employees (based on projected annual workforce levels and year-to-year variation), and salary assumptions.
Bad Debt	Bad debt ratio, including amounts of revenue that are not expected to be collected (i.e., unpaid customer bills), applied to projected RR.
Chemicals	Evolution of water production.
Commissions	• O&M: Evolution of W + WW service volumes; • Customer: Evolution of W+WW customers; • Administration: constant.
Concession	Constant.
Contracted Services	• O&M: Evolution of W service volumes; • Customer: Evolution of W+WW customers; • Administration: Evolution of W+WW customers.
Electricity	Evolution of water production.
Gas & Fuels	• O&M: Evolution of W + WW service volumes; • Customer: Evolution of W+WW customers; • Administration: Evolution of W+WW customers.
Insurances	Evolution of the Regulatory Asset Base (RAB)
Self Insurance	Specific self-insurance assumptions
Materials	• O&M: Evol. Water Production; • Customer: Evolution of W+WW customers; • Administration: Evolution of W+WW customers.
Other	• O&M: Evol. Water Production; • Customer: Evolution of W+WW customers; • Administration: Evolution of W+WW customers.
Pensions	Funded and unfunded pension assumptions
Public Services	• O&M: Evolution of W + WW service volumes; • Customer: Evolution of W+WW customers; • Administration: Evolution of W+WW customers.
Purchase of Water	Evolution of water production.
Security	Specific security cost assumptions.
PPP	Contractual terms for each PPP.

Source: Elaborated by Consultant

The methodologies applied to the main OPEX components are described below.

a. Employee Cost:

Employee Costs represent the largest component of NWC's Regulatory Test Year OPEX. As described in the Test Year OPEX section, the starting cost base already incorporates the specific adjustment applied to Employee Costs based on the information provided by NWC.

b. Bad Debt:

Bad debt is a complex and multidimensional issue influenced by several factors, including economic conditions, customer characteristics, collection practices, institutional arrangements, and other country-specific circumstances.

Based on the Company's financial information for the period 2016 to 2022, bad debt represented, on average, approximately 10.5% of operating revenue. This historical accounting measure provides context regarding the relevance of bad debt within NWC's operating cost structure[4].

Table 23: Bad Debt Annual Change (2016-2022)

Concept	Unit	2016	2017	2018	2019	2020	2021	2022
Operating Revenue	JMD billon	25.21	27.11	27.42	28.86	29.68	30.72	30.39
Impairment losses on trade receivables	JMD billon	2.31	2.69	3.27	3.24	4.90	6.17	- 1.97
Bad debt/ Revenues	%	9%	10%	12%	11%	17%	20%	-6%
Average Bad debt / Revenues	%	10%						

Source: Elaborated by Consultant with NWC´s information

It should be noted that the historical accounting bad debt ratio presented above is not directly equivalent to the collection-based indicator discussed below. Accounting bad debt reflects the recognition and provisioning policies applied by NWC, while the IBNET benchmark is derived from reported collection performance.

In particular, data published by the New International Benchmarking Network for Water and Sanitation Services (IBNET)[5] provide an additional benchmark based on utilities' collection rates. For benchmarking purposes, the complement of the collection rate is used as a proxy for the share of billed revenue that remains uncollected.

$$Bad\ Debt\ Ratio\ =\ 1\ -\ Collection\ Rate$$

[4] In 2022, the NWC made an adjustment to its bad debt provisions. Note 32 to audited statements establish that "*During the year ended March 31, 2022, it was discovered that collectability of the revenue for some of the Commission's customers (excluding customers located in specified zones, identified as red zones) was not probable as at the billing date. As a result, during the current year,management revisited the entire revenue data, including those for customers located in the red zones, and identified revenue amounts for which no significant collections were made and booked the necessary adjustments to revenue and related accounts.As a result, the opening trade receivables for the current year, was corrected for the error identified in those customer account balances remaining from prior years and for which the revenues are being derecognized*".

[5] The New International Benchmarking Networks for Water and Sanitation Services (New IBNet) provides information on service delivery performance and on management practices (https://newibnet.org/utility-dashboard)

This indicator should therefore be interpreted as an implied collection-based bad debt measure, rather than as an accounting bad debt expense.

For Jamaica, IBNET data show that NWC's collection performance remained relatively stable between 2021 and 2023, with collection rates between 85.0% and 86.3%, corresponding to implied bad debt levels of approximately 13.7% to 15.0%. In 2024, however, the collection rate declined to 82.43%, resulting in an implied bad debt ratio of 17.57%, the highest level observed over the 2021–2024 period.

Table 24: NWC IBNET Collection Rate and Implied Bad Debt for NWC

Year	Collection rate (%)	Implied Bad Debt (%)
2021	85.00%	15.00%
2022	86.29%	13.71%
2023	85.85%	14.15%
2024	82.43%	17.57%

Source: Elaborated by Consultant using information from NewIBNET

The most recent IBNET data also allow NWC's collection performance to be compared with that of other water utilities internationally. The 2024 information shows substantial dispersion across utilities. Within the sample presented, collection rates range from approximately 22.8% to 99.4%, corresponding to implied bad debt levels ranging from approximately 77% to 1%, when rounded to the nearest percentage point.

NWC reported a collection rate of approximately 82.4% in 2024, corresponding to an implied bad debt ratio of approximately 17.6%. For reference, the NewIBNET Global Average collection rate for 2024 was 92.31%, which would correspond, under the same simplifying assumption, to an implied uncollected share of approximately 7.69%.

The comparison therefore indicates that NWC's 2024 collection performance was below the overall IBNET benchmark. At the same time, the wide dispersion observed across utilities confirms that collection performance varies significantly depending on the institutional, socioeconomic, commercial and operating conditions faced by each utility. International comparisons should therefore be interpreted as useful benchmarks rather than as directly transferable targets for NWC.

Table 25: IBNET Collection Rate and Implied Bad Debt – International Benchmark, 2024

Country	Utility	Collection rate (%)	Implied Bad Debt (%)
Kiribati	Public Utilities Board	22.8%	77%
Ethiopia	Wolkite water supply and sewerage service enterprise	31.2%	69%
Vanuatu	Tafea Urban Water System	35.7%	64%
Angola	Empresa Pública de Água e Saneamento Cuando Cubango	39.4%	61%
Angola	Empresa Pública de Água e Sanemaneto do Cuando Cubango	39.4%	61%
Angola	Empresa Pública de Águas e Saneamento do Cuanza Sul, EPASKS-E.P.	43.6%	56%

Country	Utility	Collection rate (%)	Implied Bad Debt (%)
Marshall Islands	Majuro Water and Sewer Company	46.7%	53%
Ethiopia	Semera-Logiya	47.0%	53%
North Macedonia	JKP Derven Veles	54.0%	46%
South Africa	Vaal Corporation Water Utility SOC. LTD.	60.0%	40%
Angola	Empresa de água e saneamento do Huambo-Empresa Pública	60.8%	39%
Angola	Empresa de Águas e Saneamento do Cuanza Norte	61.5%	39%
Palestine	Nablus Municipality	63.1%	37%
Kenya	GARISSA WATER AND SEWERAGE COMPANY	65.4%	35%
Mozambique	Sociedade comercial Águas da Região Metropolitana de Maputo, Sociedade Anónima, para a gestão e exploração do serviço público de abastecimento de água da região metropolitana de Maputo.	67.8%	32%
Angola	Epashuila	67.9%	32%
Ethiopia	Semera logiya water supply and sewerage service utility	70.0%	30%
Serbia	JP "Vilin lug" Crna Trava	74.7%	25%
Zambia	North Western Water Supply and Sanitation Company Limited	74.8%	25%
Mozambique	sociedade comercial Águas da Região do Centro, Sociedade Anónima- Sistema da Beira	75.4%	25%
Ghana	Ghana Water Limited	77.3%	23%
North Macedonia	PUC Proleter Resen	77.7%	22%
Ethiopia	Bahir Dar City Water and Sewerage Service	77.9%	22%
Angola	EMPRESA DE ÁGUAS E SANEAMENTO DO BIÉ	77.9%	22%
Ethiopia	Hossana Water Supply and Sewerage Enterprise	78.1%	22%
Malawi	Blantyre Water Board	78.5%	21%
Ethiopia	Debereberhan water supply and sewearge service	79.7%	20%
Nigeria	Taraba State Water and Sewerage Corporation	81.0%	19%
Angola	EMPRESA PUBLICA DE AGUAS E SANEAMENTO DO ZAIRE-EP	81.3%	19%
Serbia	JKP Vodovod i kanalizacija Subotica	82.0%	18%
Ethiopia	Dilla Town Water Supply And Sewarege Enterprise	82.2%	18%
Jamaica	National Water Commission	82.4%	18%
Nigeria	Ekiti Water & Sewerage Company Limited	82.5%	17%
Tanzania	Moshi Urban Water Supply and Sanitation Authority	82.8%	17%
Papua New Guinea	Water PNG	82.8%	17%
Malawi	Norther Region Water Board	84.4%	16%
Palestine	Salfeet Municipality	85.1%	15%
Peru	EPS SEDALORETO S.A	85.7%	14%
Angola	Empresa de Água e saneamento de Malanje	86.1%	14%
Ethiopia	Hossana Town Water Supply and Swearage Enterprise	88.3%	12%
Palestine	Joint service council for planning and development Beit liqya - kharbatha al misbah	88.7%	11%
Bosnia and Herzegovina	Public Utility Company "Water Supply and Sewerage"	89.1%	11%
Angola	Empresa de Águas e Saneamento do Uíge	89.3%	11%
Ethiopia	Ejere Town Water supply and Sewerage Services Enterprise	89.5%	11%
Ethiopia	Dire Dawa Water Supply and Sewerage Authority	89.8%	10%
Uganda	Eastern Umbrella of water and Sanitation	90.0%	10%

[redacted]

Country	Utility	Collection rate (%)	Implied Bad Debt (%)
Tanzania	KAHAMA SHINYANGA WATER SUPPLY AND SANITATION AUTHORITY (KASHWASA)	91.1%	9%
Peru	EPS Grau S.A.	91.3%	9%
Albania	Shoqeria Rajonale Ujesjelles Kukes	91.6%	8%
Ethiopia	Dire Dawa Water Supply and Sewerage Authority	91.6%	8%
Honduras	UNIDAD MUNICIPAL DE AGUA POTABLE Y SANEAMIENTO	91.7%	8%
Pakistan	Lahore Water & Sanitation Agency	92.3%	8%
Fiji	Water Authority of Fiji	92.4%	8%
Mozambique	Serviço Municipal de Saneamento de Tete - SEMUSATE	92.4%	8%
Vietnam	HOA BINH CLEAN WATER JOINT STOCK COMPANY	92.5%	7%
Ethiopia	Woliso Town Water Supply and Sewerage Enterprise	92.7%	7%
Romania	Hydrokov S.A.	92.8%	7%
Philippines	BAGUIO WATER DISTRICT	93.0%	7%
Montenegro	Vodovod i kanalizacija doo Podgorica	93.6%	6%
Ethiopia	KOMBOLCHA TOWN WATER SUPPLY AND SWERAGE SERVICES	93.8%	6%
Ethiopia	Adama City Water supply and sewerage service Enterprise	93.9%	6%
Ethiopia	Adama Town water supply and sewerage service	93.9%	6%
Peru	EPS EMAPICA S.A	93.9%	6%
Samoa	Samoa Water Authority	95.0%	5%
North Macedonia	PUC Water Supply and Sewerage Prilep	95.0%	5%
Ethiopia	Bishoftu Urban Water Supply and Sewerage Service Enterprise	95.6%	4%
Kenya	KISUMU WATER AND SANITATION COMPANY LTD	96.3%	4%
Kenya	Nakuru Rural Water and Sanitation Company	96.4%	4%
Ethiopia	Debre Markos Town Water Supply and Swerage Service Office	96.6%	3%
Ethiopia	Nekemte Water Supply and Sewerage service Enterprise	96.7%	3%
Ethiopia	Bishoftu Urban Water Supply and Sewerage Service Enterprise	96.9%	3%
Romania	SC COMPANIA DE APA ORADEA SA	97.0%	3%
Ethiopia	Metu town water supply,sewerage and service Enterprise	97.1%	3%
Peru	Empresa Municipal de Agua Potable y Alcantarillado de Coronel Portillo S.A.	97.2%	3%
Vanuatu	UNELCO ENGIE	97.2%	3%
North Macedonia	JP Komunalec	97.3%	3%
Peru	EPS SEDA HUANUCO S.A.	97.8%	2%
Kenya	NHYAHURURU WATER AND SANITATION COMPANY LIMITED	97.8%	2%
Philippines	Bayawan Water Dsitrict	97.9%	2%
Peru	EPS EMAPA HUARAL S.A.	98.0%	2%
Honduras	Aguas de Puerto Cortes S.A. de C.V.	98.0%	2%
Peru	EMPRESA MUNICIPAL DE SERVICIOS DE AGUA POTABLE Y ALCANTARILLADO DE CHINCHA S.A.	98.1%	2%
Ethiopia	Meki Water Supply & sewerage service Enterprise	98.1%	2%
Vietnam	Lao Cai water supply join stock company	98.2%	2%
Micronesia, Federated States of	Chuuk Public Utility Corporation	98.2%	2%
Kenya	Kakamega County Water and Sanitation Company	98.6%	1%
Kosovo	Kompania Rajonale e Ujesjellesit BIFURKACIONI ShA	98.7%	1%

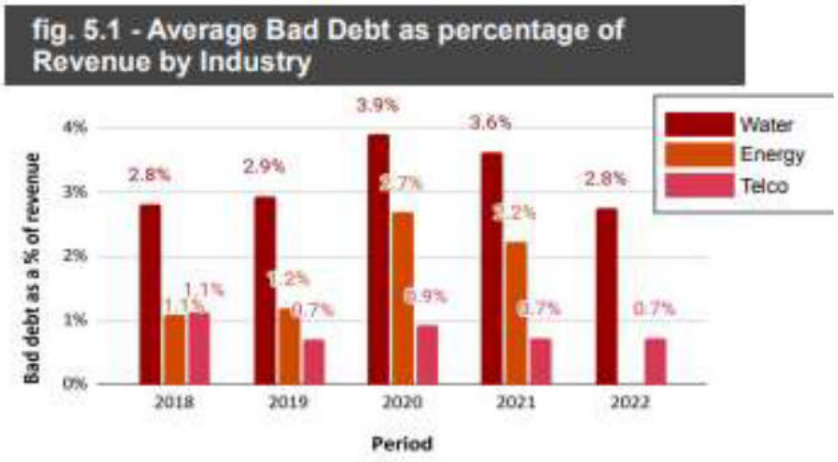
Country	Utility	Collection rate (%)	Implied Bad Debt (%)
Vietnam	SAWACO	98.7%	1%
Ethiopia	wolaita sodo town water supply and sewerage corporation	98.8%	1%
Vietnam	Ba Ria - Vung Tau Water Supply Joint Stock Company	98.9%	1%
Kenya	Murang'a West Water and Sanitation Company	99.2%	1%
Peru	EPS BARRANCA S.A	99.3%	1%
Ethiopia	Harar Water Supply and Sewerage Authority	99.4%	1%
Peru	EMPRESA PRESTADORA DE SERVICIOS DE SANEAMIENTO DE AGUA POTABLE Y ALCANTARILLADO S.A.	99.4%	1%

Source: Elaborated by Consultant using information from IBNET

Overall, the IBNET evidence provides two relevant reference points for assessing NWC's projected bad debt. First, NWC's recent historical collection performance implies bad debt levels generally in the 14%–18% range, with a deterioration observed in 2024. Second, the international comparison shows that higher collection rates are achieved by a significant number of water utilities, although performance varies considerably across the sample.

In a report published by the Water Services Regulation Authority (OFWAT), PwC made a comparative analysis of bad debt levels in the United Kingdom water sector in relation to other sectors such as electricity and telecommunications. The results showed that bad debt as a percentage of revenue in the water sector was materially higher than in some other regulated utility sectors (see figure below).

Figure 6: OFWAT, Average bad debt as percentage of revenue by industry



Source: Retail services efficiency review 2022 - Report for Ofwat[6]

The methodology used in the tariff model to address this cost element is presented below.

[6] https://www.ofwat.gov.uk/wp-content/uploads/2022/12/PwC_Retail_Services_efficiency_review.pdf

[redacted]

Bad debt, including revenue write-offs, was projected as a percentage of the RR. The applicable bad-debt ratio was derived from the projected percentage of billed revenue expected to be collected under each scenario.

Bad Debt was projected based on the expected collection performance over the tariff period. The model defines Collection as the percentage of billed revenue expected to be effectively collected, while the Bad Debt Ratio represents the corresponding uncollected share.

Accordingly, the Bad Debt Ratio is calculated as the complement of the Collection rate:

$$Bad\ Debt\ Ratio\ =\ 1\ -\ Collection\ Rate$$

For the Base Year (2025–2026), a Collection Rate of 93% was assumed, corresponding to a Bad Debt Ratio of 7%. This assumption is broadly consistent with the international benchmark presented above.

Over the tariff period, collection performance is assumed to improve progressively under the Efficient Projection, resulting in a corresponding gradual reduction in the Bad Debt Ratio.

The assumptions applied are summarized below.

Table 26: Collection and Bad Debt Assumptions for Base/Efficient Projections

Collection & Bad Debt Drivers		With NRW investments					
		2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Concept / Parish	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
Collection	%	93.00%	93%	94%	94%	95%	95.00%
Bad Debt Ratio	%	7.000%	6.60%	6.21%	5.81%	5.40%	5.00%

Collection & Bad Debt Drivers		Without NRW investments					
		2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Concept / Parish	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
Collection	%	93%	93%	93%	93%	93%	93%
Bad Debt Ratio	%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%

Source: Tariff & Financial Model

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

e. **Electricity:**

Electricity costs were projected taking into account the evolution of water production, together with known and measurable adjustments. In addition, under the With NRW Investments and Energy Efficiency scenario, the projection incorporates an Energy Cost Consumption Reduction due to Improvements in Efficiency, reflecting the expected decrease in energy consumption associated with the implementation of energy-efficiency measures. As a result, electricity costs under this scenario reflect both the lower water production requirements associated with NRW reductions and the additional savings generated by energy-efficiency improvements.

f. **Other Cost Elements:**

The remaining OPEX components were projected using the drivers presented before, and the results are presented in sections 5.4.3.1 and 5.4.3.2.

- Chemicals and purchased water were projected based on the evolution of water production. Under the Base OPEX Projection, higher water production is required to meet demand due to higher levels of water losses. Under the Efficient OPEX Projection, reductions in NRW decrease the volume of water that must be produced to satisfy the same level of demand. Consequently, these cost components are lower under the Efficient OPEX Projection than under the Base OPEX Projection, all other factors remaining equal.
- Commissions, Contracted Services, Gas and Fuels, Materials, Other Costs, and Public Services: O&M costs vary according to W and W+WW service and production volumes; Customer Service costs vary according to the number of W+WW customers; and Administration costs remain constant or vary according to the number of W+WW customers as well.
- Concession and Self-Insurance: remains constant throughout the tariff period.
- Insurance: varies according to the evolution of the Regulatory Asset Base (RAB), reflecting changes in the value of insured assets.
- Security: is projected according to the specific cost assumptions incorporated into the model.

Table 29: Security increase Assumptions for Base/Efficient Projections

		2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Description	Unit	Year 1	Year 2	Year 3	Year 4	Year 5
Additional security cost increase	%	6.25%	5.88%	5.56%	5.26%	5.00%

Source: Tariff & Financial Model

5.4.3. OPEX Results

The Base and Efficient OPEX projections are presented below. For simplicity, the results are shown by cost categories only (e.g., Bad Debt, Employee Costs, Materials and Chemicals). However, the Tariff and Financial Model allows OPEX to be disaggregated by parish; process (O&M, Administration and Customer Service); service (W, WW or W+WW); and cost behaviour (fixed or variable).

The Control Panel allows users to develop different scenarios by modifying the main model assumptions. For the results presented in this section, the assumptions and settings shown in Scenario Configuration Used for the Results Presented were selected.

[redacted]

5.4.3.1. OPEX Base Projection

Table 30: OPEX Base Projection

		Without NRW investments and energy efficiency					
		2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Cost Component	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
Bad Debt	JMD	2,796,415,891	4,438,572,096	4,512,367,151	4,768,062,180	5,001,430,705	5,177,849,995
Chemicals	JMD	313,075,000	314,808,248	316,627,492	318,479,097	320,375,917	322,312,189
Comissions	JMD	254,896,795	254,896,795	254,896,795	254,896,795	254,896,795	254,896,795
Concession	JMD	63,631,191	63,631,191	63,631,191	63,631,191	63,631,191	63,631,191
Contracted Services	JMD	3,965,625,334	4,031,551,864	4,100,090,758	4,170,952,277	4,244,353,438	4,320,459,553
Electricity	JMD	10,129,169,239	10,185,246,395	10,244,105,895	10,304,012,360	10,365,381,707	10,428,027,491
Employee Costs	JMD	16,003,165,330	16,003,176,068	16,003,194,249	16,003,208,662	16,003,222,666	16,003,235,976
Gas & Fuels	JMD	317,324,049	325,672,892	334,297,436	343,196,395	352,432,340	362,008,140
Insurances	JMD	1,134,461,529	1,300,927,709	1,464,900,679	1,591,281,671	1,704,778,661	1,821,901,787
Self Insurance	JMD	208,632,540	208,632,540	208,632,540	208,632,540	208,632,540	208,632,540
Materials	JMD	2,582,465,969	2,625,194,416	2,669,602,331	2,715,454,724	2,762,911,878	2,812,081,710
Other	JMD	2,139,377,988	2,201,657,732	2,269,834,574	2,338,384,916	2,409,143,901	2,482,173,883
Pensions	JMD	3,578,556,974	2,588,822,583	2,678,112,583	2,772,112,583	2,869,912,583	2,973,602,583
Public Services	JMD	159,473,006	164,671,629	170,068,902	175,677,690	181,511,320	187,591,270
Purchase of Water	JMD	523,772,762	526,672,475	529,716,062	532,813,786	535,987,155	539,226,528
Security	JMD	1,043,836,274	1,108,862,073	1,173,922,216	1,238,964,977	1,304,005,846	1,369,043,513
PPP	JMD	5,391,055,251	5,334,015,866	5,699,352,714	5,699,352,714	5,699,352,714	5,699,352,714
Total	JMD	50,604,935,123	51,677,012,571	52,693,353,568	53,499,114,558	54,281,961,357	55,026,027,858

[redacted]

Source: Tariff & Financial Model

[redacted]

5.4.3.2. OPEX Efficient Projection (with NRW investments and energy efficiency)

Table 31: Efficient OPEX Projection

		With NRW investments and energy efficiency					
		2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Cost Component	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
Bad Debt	JMD	2,796,415,891	4,187,093,456	3,999,957,504	3,954,160,880	3,860,684,103	3,698,464,282
Chemicals	JMD	313,075,000	289,422,786	271,164,522	256,422,438	244,212,051	233,915,426
Comissions	JMD	254,896,795	254,896,795	254,896,795	254,896,795	254,896,795	254,896,795
Concession	JMD	63,631,191	63,631,191	63,631,191	63,631,191	63,631,191	63,631,191
Contracted Services	JMD	3,965,625,334	3,836,669,287	3,751,071,706	3,694,539,417	3,659,633,757	3,641,821,035
Electricity	JMD	10,129,169,239	9,357,471,596	8,763,215,292	8,282,720,794	7,884,136,379	7,549,592,934
Employee Costs	JMD	16,003,165,330	15,570,165,635	15,148,893,134	14,739,017,460	14,340,232,984	13,952,239,118
Gas & Fuels	JMD	317,324,049	325,368,792	333,689,126	342,282,618	351,212,422	360,484,300
Insurances	JMD	1,134,461,529	1,300,927,709	1,464,900,679	1,591,281,671	1,704,778,661	1,821,901,787
Self Insurance	JMD	208,632,540	208,632,540	208,632,540	208,632,540	208,632,540	208,632,540
Materials	JMD	2,582,465,969	2,506,487,073	2,456,993,122	2,425,220,952	2,406,671,759	2,398,594,347
Other	JMD	2,139,377,988	2,183,672,570	2,236,321,867	2,290,663,201	2,348,215,158	2,408,902,491
Pensions	JMD	3,578,556,974	2,567,173,791	2,635,400,754	2,708,907,624	2,786,768,980	2,871,059,819
Public Services	JMD	159,473,006	164,671,397	170,068,433	175,676,986	181,510,380	187,590,094
Purchase of Water	JMD	523,772,762	484,202,737	453,656,761	428,993,335	408,565,425	391,339,228
Security	JMD	1,043,836,274	1,108,702,438	1,173,624,388	1,238,540,329	1,303,463,054	1,368,390,118
PPP	JMD	5,391,055,251	5,334,015,866	5,699,352,714	5,699,352,714	5,699,352,714	5,699,352,714
Total	JMD	50,604,935,123	49,743,205,659	49,085,470,530	48,354,940,944	47,706,598,355	47,110,808,220

[redacted]

Source: Tariff & Financial Model

The tables above shows the expected cost reduction in the different cost components, as a result of applying the efficiency criteria (mentioned in the sections above).

5.5. Cost of Capital

From an economic and regulatory standpoint, the Cost of Capital component of the revenue requirement comprises two distinct elements. The first is the Maintenance Cost of Capital, or depreciation, which allows the utility to recover the value of assets consumed in the provision of service. The second is the Opportunity Cost of Capital, which recognizes a reasonable return on the capital invested in the asset base used to provide the regulated service.

Within this framework, the WACC is not a methodology for determining depreciation, working capital, or the regulatory asset base itself. Rather, the WACC is the regulatory rate of return applied to the NRAB. It estimates the opportunity cost of the financial resources committed to the regulated business by shareholders, considering the cost and relative participation of debt and equity financing. The use of WACC is consistent with the general regulatory principle that tariffs should allow the utility to recover efficient operating costs, depreciation, and a reasonable return on the capital employed in providing the regulated service. For NWC, this rate is particularly relevant because the tariff study seeks to remunerate the assets devoted to water and sanitation activities, rather than to measure accounting profitability on the basis of book equity alone.

It is important to note that in previous tariff submissions, the NWC applied the Return on Equity (ROE) approach, rather than the Weighted Average Cost of Capital (WACC) based regulatory approach, to determine the remuneration of assets. Despite both methods are utilized in water and sanitation analysis, **from an economic analysis standpoint, applying WACC should be viewed as an improvement or deepening in the cost study as to the tariff submission developed herein.**

5.6. Distinction between ROE, ROA and WACC

It is important to distinguish between accounting profitability indicators and the regulatory cost of capital. Return on Equity (ROE) and Return on Assets (ROA) are ex-post accounting ratios. ROE measures net income relative to book equity, while ROA measures net income relative to total assets. Both indicators may be useful for diagnostic or comparative purposes, but neither represents, by itself, the forward-looking regulatory rate of return required for tariff-setting purposes.

In previous tariff submissions, NWC applied a return-on-equity approach for the remuneration of assets. However, NWC's unaudited financial statements as of March 31, 2026 show negative book equity. In those circumstances, a direct ROE calculation becomes mathematically unstable and economically difficult to interpret, because the denominator no longer represents a positive capital base. As a result, ROE may generate distorted values and may not provide a reliable basis for tariff determination.

ROA provides a broader accounting reference because it relates profitability to the assets used in service provision. Nevertheless, ROA is still an accounting indicator and should not be confused with WACC. The methodological improvement proposed in this study is not merely a shift from ROE to ROA, but rather the adoption of a WACC-based regulatory return. WACC is a forward-looking estimate of the opportunity cost of capital required to finance the regulated asset base, considering both debt and equity financing.

Therefore, for tariff-setting purposes, the relevant objective is to allow NWC to recover efficient costs and earn a reasonable return on the capital invested in the assets used to provide regulated services. This approach is more consistent with regulatory asset base methodologies and avoids distortions arising from negative accounting equity.

In summary in natural monopolies, the objective is to ensure that the company can cover efficient costs and obtain a reasonable return on the capital invested in assets, rather than on the accounting

equity. This is especially relevant in sectors that have undergone financial crises, extraordinary investments, or prolonged periods of losses. The application of WACC is a more appropriate approach for the regulation of water and sanitation services, because it eliminates accounting distortions caused by historical losses, ensures comparability and metric stability, aligns with the regulatory logic of remunerating investment in assets rather than accounting structures, allows for more objective and consistent tariff-setting decisions.

The Section below explores in detail the methodology and approach applied to calculate all elements of WACC, and provide the results obtained considering the selected investment scenario.

6. WACC

The overall rate of return is the Weighted Average Cost of Capital (WACC) and is calculated as the weighted average cost of both the long-term debt and the equity components of the capital structure. WACC determines the rate of return over the capital involved in NWC´s operations, which can be supported by equity or debt. WACC takes into consideration both forms of funding and averages the cost of each. WACC determination, estimated initially in real terms, should play a significant role in the computation of the total cost of the service. Therefore, its nominal variations over time should be considered to ensure the NWC's capital remains sufficiently remunerated.

$$WACC = \frac{D}{D+E} * r_D * (1-t) + \frac{E}{D+E} * r_E$$

D = current Debt

E = current Equity

(1 – t) = tax shield due to deduction of debt expenses, being "t" the marginal corporate tax rate

rD = average cost of Debt

rE = return on Equity

This formula implies that NWC can deduct the interest component of its debt-service obligations from taxable earnings, thereby obtaining a tax shield. Consequently, the initial estimation of WACC under this approach should be viewed as an after-tax WACC.

Annex 0 includes the responses to OUR's observations on the preliminary document previously submitted, which set out the WACC methodology and calculations.

6.1. Weight of Debt and Equity

The WACC calculation requires the definition of a regulatory capital structure. In principle, the regulated asset base may be financed through debt, equity, or a combination of both. For NWC, the direct use of book equity is not appropriate because the company reports negative accounting equity. Consequently, the regulatory capital structure must be determined by reference to the financing of the net regulatory asset base rather than by mechanically using book equity values.

For the purposes of this tariff study, the debt component corresponds to the long-term debt considered relevant for WACC purposes, based on the loans financing assets in service and non-current investments. Where specific loan portions are funded by the K-factor mechanism, those portions are excluded from the WACC calculation to avoid double remuneration through both the K-factor and the general tariff return.

The residual portion of the net regulatory asset base is treated as notional equity. This treatment recognizes that, although book equity is negative, the assets used to provide the regulated service

must have been financed either through debt or through shareholder support, retained public commitment, accumulated deficits, or other forms of implicit equity support. The approach therefore avoids the economic inconsistency of assigning the regulated asset base entirely to debt financing simply because book equity is negative.

Accordingly:

$$\frac{Equity}{NRAB} \cong 1 - \frac{Debt}{NRAB}$$

Figures from NWC's unaudited financial statements as of March 31, 2026, show a **negative book equity of JMD 56,524,244**. The occurrence of negative equity in financial statements may be attributed to accumulated losses over several periods, which, despite intermittent capital inflows, have eroded the firm's equity base and the ability of the shareholders to earn positive returns on their investment in the Company. Additional contributing factors include excessive cost overruns and underperformance in revenue collection, which act in the same way.

Table 32: NWC Statement of Changes in Equity (unaudited)

	Reserves	Accumulated Deficit	Total
Balances at March 31, 2025	38,154,489	(35,172,239)	2,982,250
Capital Contribution	-	-	-
Total comprehensive income/(loss):			
Prior Period Adjustments		(245,196)	(245,196)
Net Profit/(Loss) for the year	-	(2,793,578)	(2,793,578)
Balances at March 31, 2026	**38,154,489**	**(38,211,013)**	**(56,524)**

In this regard, the accumulated deficits may be viewed as an economic measure of the implicit support provided by the shareholders of the company (i.e., the Government of Jamaica) in sustaining NWC's operations despite insufficient revenue inflows over previous years. This continued financial commitment underscores the essential nature of the services provided and their strategic importance to social welfare, public health, and environmental protection.

While the audited equity position remains negative, for the purpose of WACC estimation, it is proposed that a notional equity base be recognized to reflect the economic support provided by the shareholder. To the extent that this support is considered a form of equity financing and is to be remunerated under market conditions, the applicable rate of return should reflect the Company's cost of equity.

This methodology consistently ensures that both the cost of debt and the cost of equity are adequately reflected in the tariff composition.

[redacted]

According to the specific studies undertaken to determine the NRAB—namely, the NWC Impairment Assessment Mar 23 – Addendum Report v1.0 and the Regulatory Asset Base Roll-In and Roll-Forward Mechanism—the NRAB for the base year amounts to **JMD 87,218,826,966**.

The debt considered for the WACC estimation comprises the long-term loans used to finance NWC's assets base. The detailed composition of long-term loans used in the calculation, as extracted from the Notes of unaudited Financial Statements as of March 31, 2026, is presented in the following table (figures are computed in thousands).

As a portion of certain existing credit facilities is funded through the K-Factor, the associated financing costs are recovered through K-Factor billings. To avoid double recovery, this portion is therefore excluded from the debt used in the WACC calculation. The proportion of each loan included in the WACC calculation is reflected in the column labelled "WACC Incidence."

[redacted]

Table 33: NWC Long term loans

	Maturity Date	Interest rate type	Interest Rate	Original Currency	JMD Balance	WACC Incidence
USD						
GOJ/GOI - India Pumps & Generators	July 2023	Fixed @	3.38%	7,500	1,189,384	100.0%
IDB Loan - KWS	Sep 2030	Variable @	5.22%	6,037	957,348	100.0%
IDB Loan US$133M (No. 2633/OC-Ja - re KMA Water Supply)	Dec 2031	Variable @	5.22%	55,958	8,874,140	100.0%
Total USD loans				**69,495**	**11,020,873**	
JMD						
GOJ 2005 - China Pipes Loan		Fixed @	2.00%	789,645	789,645	100.0%
Nht Loan- re Estuary Housing Development,Friendship St.James	Jan 2030	Fixed @	0.00%	104,331	104,331	100.0%
Port Antonio Sewerage & Drainage		Fixed @	5.77%	28,100	28,100	100.0%
NWC/GOJ ICT Infrastructure Loan	March 2045	Fixed @	6.50%	380,219	380,219	100.0%
NWC/JCSA J$5B Secured 13.5% FR Bond 2058 - Tranch A	March 2058	Fixed @	13.35%	5,000,000	5,000,000	26.7%
NWC/JCSD J$2B Secured 11.40% FR 2038 - Tranch B	March 2038	Fixed @	11.40%	2,000,000	2,000,000	26.7%
NWC/JCSD J$8B Secured 10.5% FR Bond 2028 - Tranch C	March 2028	Fixed @	10.50%	3,200,000	3,200,000	26.7%
GOJ/Ministry of Finance & Public Service J$4.7B Loan	Aug 2045	Fixed @	6.50%	4,189,130	4,189,130	100.0%
MOF Pipeline Project ($2.2B)	Feb 2047	Fixed @	7.25%	2,008,696	2,008,696	100.0%
MOF Loan- Capital Programme (JPS Repayment)	June 2026	Fixed @	4.75%	54,545	54,545	100.0%
NHT Loan - Greater Mandeville W/S	June 2049	Fixed @	5.00%	344,738	344,738	100.0%
FCIB J$1.4B Loan (Re-Financing of J$1.889B Bond Loan)	March 2038	Fixed @	7.25%	1,120,880	1,120,880	100.0%
GOJ J$900M - supply of pumping equipment	March 2034	Fixed @	10.00%	720,000	720,000	100.0%
NCB motor vehicle Loan J$180.14M	March 2030		9.75%	144,119	144,119	100.0%
Total JMD loans				**20,027,463**	**20,027,463**	
Grand Total					**31,048,336**	

Applying the respective WACC incidence percentage to the closing JMD balance of each long-term loan results in total debt of JMD 23,628,677,113.75 being included in the WACC calculation. Therefore, the Debt ratio or Gearing ratio (***G***):

$$Debt\ Ratio = G = \frac{Debt}{NRAB} = \frac{23{,}628{,}677{,}114.}{87{,}218{,}826{,}966} = \mathbf{27.09}\%$$

and

$$Equity\ Ratio = \frac{Equity}{NRAB} = 1 - G = 1 - 27.09\% = \mathbf{72.91}\%$$

6.2. Cost of Equity

The cost of equity represents the return required to remunerate the equity portion of the regulated capital base. For this study, it is estimated using a CAPM-based approach adjusted for Jamaica's country risk. The formula applied is:

$$\boldsymbol{r_E = r_f + r_c + \beta * r_p}$$

$\boldsymbol{r_f}$ = risk free rate

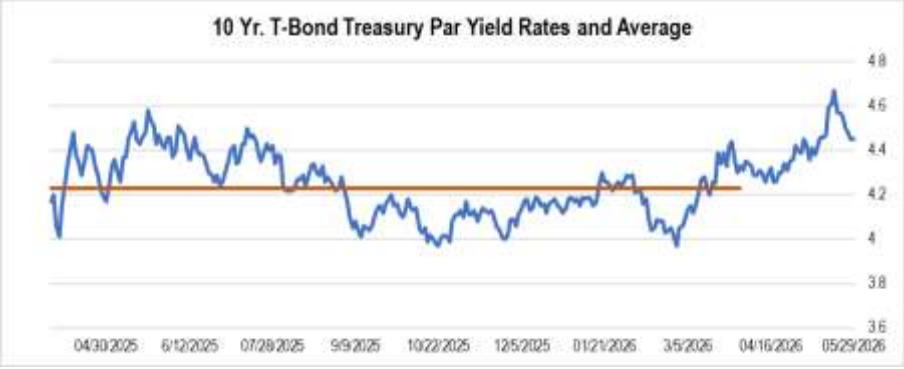
$\boldsymbol{r_c}$ = country risk premium for Jamaica

$\boldsymbol{\beta}$ = is the levered beta reflecting NWC's regulatory capital structure; and

$\boldsymbol{r_p}$ = is the mature market equity risk premium for the company/industry

According to OUR Determination Notice on 2013-2018 tariff "*the 10-year U.S. Treasury bond is an appropriate measure of a long-term risk-free rate of return. The information can be sourced publicly where it is presented in nominal terms*". The OUR also stated that the current rate should be the most recent figure, to reflect the forward-looking approach.

Figure 7: 10 Yr. US T Bond Treasury Par Yield Rates and Average



However, analysis of recent data from 10Yr – US Treasury Daily unweighted average rate shows significant volatility; to minimize the effect of such volatility when adopting a point value, the

arithmetic average for the period April 1, 2025 to March 31, 2026 is calculated and 4.23% is obtained, which is the adopted value Nominal Risk free premium r_f to be used. [7]

The Country Risk relates to the probability that any changes in the business environment will reduce the profitability of doing business in that country or the value or actual profitability of an asset. A wide variety of institutional, political and macroeconomic factors do influence the Country Risk. The Country Risk Premium (Rc) seeks to compute the effect in the rate of return of an asset, based on the average differential rate of return for assets related to a specific country. There exist different approaches to quantify the Rc; for the purpose of the present calculations, **the r_c is 4.66%** adopted from the Country Risk Premium estimated by Aswath Damodaran for Jamaica, which most recent update was on January 5, 2026. According to the source, its estimate methodology follows one of two ways:

(1) Use the local currency sovereign rating (from Moody's: www.moodys.com) and estimate the default spread for that rating (based upon traded country bonds) over a default free government bond rate[8]. For countries without a Moody's rating but with an S&P rating, Moody's equivalent of the S&P rating is used. To get the default spreads by sovereign rating, the CDS spreads are used to compute the average CDS spread by rating. Using that number as a basis, extrapolation is done for those ratings for which have no CDS spreads.

(2) Start with the CDS spread for the country, if one is available and subtract out the US CDS spread, since the basic mature market premium is derived from the US market. That difference becomes the country spread. For the few countries that have CDS spreads that are lower than the US, results are a negative number.

The mature market Risk Premium (r_p) represents the expected excess return over the risk-free rate required by investors to hold a diversified equity portfolio in a mature market. It is intended that this parameter has no effects from the nominal rate for this parameter is based on the Historical returns: Stocks, Bonds & T.Bills with premiums estimated by Damodaran for the S&P500 assets, as of December 31, 2025. This figure is obtained by Damodaran from the difference on average Annual Returns on Investments between S&P 500 assets and US T. Bond (10-year).[9]

Statistics for every year of the series since 1928 show relevant differences across time segments. Given that the r_p aims to capture the average expected return out of short-term economic situations, the1928-2025 average **7.03%** is adopted.

[7] Resource Center | U.S. Department of the Treasury

[8] Jamaica's sovereign credit rating, as assessed by Moody's Ratings, is Ba3. This rating is used as an input in Damodaran's methodology for estimating the country risk premium

[9] pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html

[redacted]

Table 34: Arithmetic Average Historical Return

Years	S&P 500 (includes dividends)	US T. Bond (10-year)	Market Risk Premium
1928-2025	11.85%	4.82%	7.03%
1976-2025	13.17%	6.60%	6.56%
2016-2025	15.75%	1.22%	14.52%

The selection of this source for the adoption of this parameter is consistent with the backward-looking nature of the rest of the parameters utilized in the CAPM application and based on long term data for the US market. This aims to emulates a similar criterion already adopted by OUR for other companies.[10]

The beta parameter captures the systematic risk of the water utility sector relative to the market. The starting point is the average unlevered beta for the global water utility industry, based on Damodaran's 2026 industry dataset. The unlevered beta for Utility (Water) is 0.4453385, based on 106 companies. This value is then re-levered using NWC's regulatory capital structure based on notional equity previously detailed, and the applicable corporate income tax rate:

$$\beta_L = \beta_U \times [1 + (1 - T) * (D/E)]$$

$$\beta_L = 0.44533 \times \left[1 + (1 - 33.33\%) * \left(\frac{27.09\%}{72.91\%}\right)\right]$$

This ensures reflection of the specifics leveraging structure of the company in the risk estimation in order to reach the required input needed for CAPM, the value obtained is $\boldsymbol{\beta}$ **= 0.5556571.**

$$\text{Return on Equity}_{(\%,\text{nominal USD})} = 4.23\% + 4.66\% + 0.5556571 * 7.03\% = \mathbf{12.80\%}$$

The resulting nominal Cost of Equity is 12.81%. This value reflects the theoretical nominal rate of return required by an investor investing in the company, nominated in USD. Given that the tariff model and regulatory asset base are expressed in Jamaican dollars, the nominal U.S. dollar return is converted into nominal Jamaican dollar terms using forward-looking exchange-rate assumptions from BoJ

[10] In the latest JPS tariff determination for 2019-2024 (jps 2019-2024 tariff review determination notice - _final_-20201224.pdf) the OUR has stated that MMRP "*is computed indirectly by finding the difference between the Total Market Return (TMR) and the real risk-free rate*". Also in Criterion 2 (b) (iv) of the Addendum to Final Criteria for JPS, the Office states that the Total market Return shall be the arithmetic average of long-run historical data of the U.S. Market from 1900 to 2018. In this proposed methodology, the adoption of the analogous metrics from Damodaran´s data is aimed at reinforcing the coherence of the different parameters and assumptions adopted.

Table 35: Inflation and depreciation parameters adopted for WACC calculation

Expected Depreciation of JMD to USD	Expected for period Apr/26 – Mar/27	2.7%
Expected Inflation JMD	Mar/26 Surveyed expected inflation for 12-month period	7.1%

Source: Bank of Jamaica, May, 2026 Quarterly Monetary Policy Report

The adoption of Bank of Jamaica forecasts as the sole source of prospective inflation and exchange-rate assumptions reflects the need to preserve internal consistency within the WACC framework. Inflation, currency depreciation and interest rates are interrelated macroeconomic variables, and their expected evolution should be derived from a common economic outlook. By relying on BoJ parameters and projections, as publicly stated in their regular policy reports, all forward-looking parameters are anchored to a single macroeconomic scenario and therefore remain economically coherent.

The use of Bank of Jamaica forecasts is particularly appropriate given that Jamaica operates under an inflation-targeting monetary policy framework. By the nature of the policy framework, the BoJ sets the target range[11] but it does not reveal to the public a unique value-target nor the full detailed chart of instruments that will be used to achieve so. Expectations play a key role in BoJ decision-making to dynamically fine-tune its instruments. Continuous a systematic surveying of economic agents' expectations are a key input for BoJ monetary policy, and for that reason:

> "*The Statistical Institute of Jamaica (STATIN) undertakes surveys of businesses on behalf of the Bank of Jamaica to ascertain the expectations of these economic agents about variables which are likely to have an impact on inflation in the near-term. In this regard, the survey captures the perception of Chief Executive Officers, Managing Directors and Financial Controllers about the future movement of prices, current and future business conditions and the expected rate of increase in wages/salaries. These responses assist the Central Bank in charting future policy decisions*."[12]

Surveys on public´s expectations on main financial and economic variables are dynamic forward-looking parameters that shape monetary policy and therefore are the best option for accounting

[11] The underlined is from the consultant. The current BoJ's inflation target range is of 4.0% to 6.0%. However, it´s worth noting that forecasted inflation range for the future quarters do follow expectations even when they fall beyond the bank´s target. As stated in cited May, 2026 QMPR "*Based on these scenarios, the average inflation rate over the next two years (June 2026 to March 2028) is projected to rise within the range of 5.0 to 8.0 per cent, relative to 4.6 per cent over the previous eight quarters. Inflation is projected to rise above the Bank's target range particularly over the next two quarters depending on the severity and duration of the conflict, before moderating to within the target range as geopolitical tensions ease*".

[12] Survey of Businesses' Inflation Expectations, BoJ.

expected inflation and depreciation. The main resulting figures of these surveys are condensed in BoJ´s Monetary Policy Report [13], posing them as the primary source of prospective macroeconomic variables. As the institution responsible for achieving and maintaining the inflation target, the Bank of Jamaica's projection framework constitute the most authoritative and internally consistent source of forward-looking inflation expectations for regulatory and financial modelling purposes.

Therefore:

$$Cost\ of\ Equity_{(JMD,nominal)} = \left[1 + Cost\ of\ Equity_{(USD,nominall)}\right] * [1 + \text{Expected Depreciation JMD}] - 1$$

$$Cost\ of\ Equity_{(JMD,nominal)} = [1 + 12.80\%] * [1 + 2.7\%] - 1 = \mathbf{15.84}\%$$

In conclusion, **return on Equity (r_E),** expressed in nominal JMD is estimated in **15.84%** for the purpose of WACC calculation.

6.3. Cost of Debt

The cost of debt represents the weighted average cost of the long-term debt considered relevant for WACC purposes. The calculation includes both JMD-denominated and USD-denominated debt, considering the WACC incidence factor assigned to each loan line. Debt portions funded through the K-factor mechanism are excluded to avoid double counting.

The detail of existing credit lines at the end of the base year has been already presented in Table 33: NWC Long term loans. For each type, JMD and USD denominated, the weighted average interest rate was obtained, being the average of **JMD denominated loans 7.74%** and average of **USD denominated loans 5.02%**.

Because the final WACC is expressed in JMD, the USD-denominated debt component must be converted into a JMD-equivalent nominal return. For this purpose, the calculation uses the annual expected depreciation of the Jamaican dollar against the U.S. dollar for the next year as follows:

$$r\ of\ USD\ denomitated\ loans_{(JMD,nominal)} = \left[\left(1 + r_{(USD,nominal)}\right) * (1 + Expect.Depr)\right] - 1$$

$$r_{(JMD,nominal)} = [(1 + 5.02\%) * (1 + 2.70\%)] - 1 = \mathbf{7.86}\%$$

Given that USD-denominated debt represents 46.64% of total long-term debt, the weighted average nominal cost of debt in JMD is calculated as follows:$Cost\ of\ Debt_{(JMD,nominal)} = 7.86\% * 46.64\% + 7.74\% * (1 - 46.64\%) = \mathbf{7.80}\%$

[13] "*Monetary Policy Report describes the MPC's recent policy decisions and outlines the Bank's projections for inflation in Jamaica and the main macroeconomic variables that affect it. The Monetary Policy Report is prepared and published once every three months and coincides with four of the Bank's monetary policy announcements*"

Table 36: figures involved in calculating Cost of Debt for NWC

Average cost of JMD denominated loans, nominal JMD	7.74%
FX (USD) Nominated debt, % of Total	46.64%
Weighted Average Interest Rate of USD denominated loans, nominal USD	5.02%
Average cost of USD denominated loans, nominal JMD	7.86%
Average cost of debt, nominal JMD	7.80%

The **nominal JMD cost of debt of 7.80%** is adopted in the WACC calculation. This estimate may be regarded as conservative in comparative terms and is largely attributable to NWC's institutional characteristics and financing profile. As a publicly owned utility, NWC benefits from access to funding sources under conditions that are generally more favorable than those available to private-sector borrowers. Accordingly, the resulting cost of debt remains at the lower end of the range typically observed in comparable regulatory determinations and sector benchmarks.

6.4. Tax Treatment and WACC Formula

The standard WACC formula accounts for the tax deductibility of interest expenses by incorporating the after-tax cost of debt:

$$WACC_{(nominal,after-tax)} = G * r_D * (1 - t) + (1 - G) * r_E$$

The inclusion of the factor $(1 - t)$ on the cost of debt reflects the tax shield generated by the deductibility of interest expenses. Therefore, the direct result of this formula is the nominal after-tax WACC.

Applying the figures already obtained in the previous steps:

$$WACC_{(nominal,after-tax)} = 27.09\% * 7.80\% * (1 - 33.33\%) + 72.91\% * 15.85\% = \mathbf{12.96}\%$$

For tariff-setting purposes, if the rate applied to the regulatory asset base must be expressed before income tax, the after-tax WACC is grossed up for corporate income tax:$WACC_{(nominal,pre-tax)} = G * r_D + (1 - G) * \frac{r_E}{(1-t)} = \mathbf{19.44}\%$

In order for the application of this gross-up to be consistent, it must be verified that the economic result arising from the application of the WACC rate to the income requirement generates sufficient profit to determine the application of the marginal tax rate. The projections of the financial model on which the tariff proposal is based show that the economic result before tax meets this requirement and therefore the allowed return requires a full statutory tax gross-up. Corporate tax flow is modeled

within the financial projections in which the resulting WACC is applied (see Projected Financial Performance).

6.1. Real Pre-Tax JMD-Denominated WACC

The tariff model requires consistency between the price basis of the RAB and the rate of return applied to it. Therefore, the nominal WACC value is converted into real terms using the expected inflation rate applicable for the currency in which the tariff model is expressed.

For the JMD-denominated WACC, the expected Jamaica inflation rate is applied as follows:

$$WACC_{(real,pre-tax)} = \frac{(1 + WACC_{(nominal,pre-tax)})}{(1 + Exp.\ Inflation)} - 1 = \frac{(1 + 19.44\%)}{(1 + 7.1\%)} - 1 = \mathbf{11.52\%}$$

Accordingly, the real pre-tax WACC for the JMD-denominated tariff model is **11.52 %.** This rate is applied in determining the allowed return on the NRAB used in NWC activities.

6.2. Sensitivity & Benchmark analysis of WACC

Based on the resulting real pre-tax WACC obtained, a sensitivity analysis was carried out to evaluate how strongly changes in key parameters of its calculation may influence the result. In kept of the calculation methodology, key parameters were changed one at a time, accounting for the resulting WACC and its correspondent elasticity.

Table 37: Results of Sensitivity analysis of WACC

Hypothesis	Resulting WACC	Elasticity
5% increase in expected inflation	11.15%	-0.6396
5% increase in expected depreciation	11.69%	0.2990
5% increase in Cost of Debt	11.62%	0.1711
Corporate Mg. Tax rate = 25% (decrease)	9.81%	0.5929
5% increase in nominal ROE	12.19%	1.1650
5% increase in Market Risk Premium	11.73%	0.3557
5% increase in Country Risk Premium	11.77%	0.4242
5% increase in Risk Free Premium	11.74%	0.3851

Source: this consultancy

The sensitivity analysis indicates that the WACC is most responsive to variations in the cost of equity. Although the elasticity[14] associated with the ROE is the highest among the scenarios assessed, substantial changes in the WACC would only arise under relatively significant variations in the parameters used to estimate the cost of equity. Indeed, when considered individually, the various risk premia included in the ROE calculation have a moderate effect on the resulting WACC.

[14] Elasticity was calculated as E = *(% change in 11.52% WACC) / (% change in parameter)*, reflecting how a 1% change in the parameter may change the WACC figure obtained in %.

Expected inflation and the corporate income tax rate emerge as the second most influential variables. Changes in inflation affect the transformation of nominal returns into real returns, while variations in the tax rate modify the tax benefits associated with debt financing. Despite their relevance, their influence remains below that of the cost of equity assumptions.

The remaining scenarios exhibit relatively low elasticities, indicating that the WACC is reasonably robust to moderate changes in the underlying assumptions. Variations in the Market Risk Premium, Country Risk Premium and Risk-Free Rate produce only moderate changes in the resulting WACC, despite being key inputs to the cost of equity. This suggests that no single risk component exerts a disproportionate influence on the final result and that the methodology is not overly sensitive to small adjustments in any individual parameter.

Similarly, changes in the cost of debt have a comparatively limited impact on the WACC, reflecting both the relatively low proportion of debt within NWC's capital structure and the fact that debt financing benefits from the associated tax shield.

Overall, the sensitivity analysis demonstrates that the resulting WACC remains relatively stable across a broad range of plausible assumptions. The absence of extreme elasticities across the tested parameters provides comfort that the estimated WACC is not unduly driven by any single assumption and therefore represents a balanced estimate of NWC's cost of capital.

Also an exercise of regional benchmark analysis was conducted to see whether the estimated rate of return obtained falls into an appropriate range or not with those of similar cases (water and sanitation utilities) in the region. To this end, the implied real post-tax return rate is calculated acknowledging that the Price Adjustment Mechanism (PAM) that monthly adjusts NWC billing to compensate for changes in the relevant cost indices. Consequently, the PAM mechanism is intended to preserve the purchasing power of allowed revenue and the projected operating result in real terms.

Considering that financial projections derive in the application of the marginal corporate tax rate, the implied real post-tax return rate was derived by applying the corporate tax factor to the 11.52% real pre-tax regulatory return. The results show that the proposed WACC lies within the range of outcomes observed in recent comparable regulatory determinations across the region and can be considered conservative.

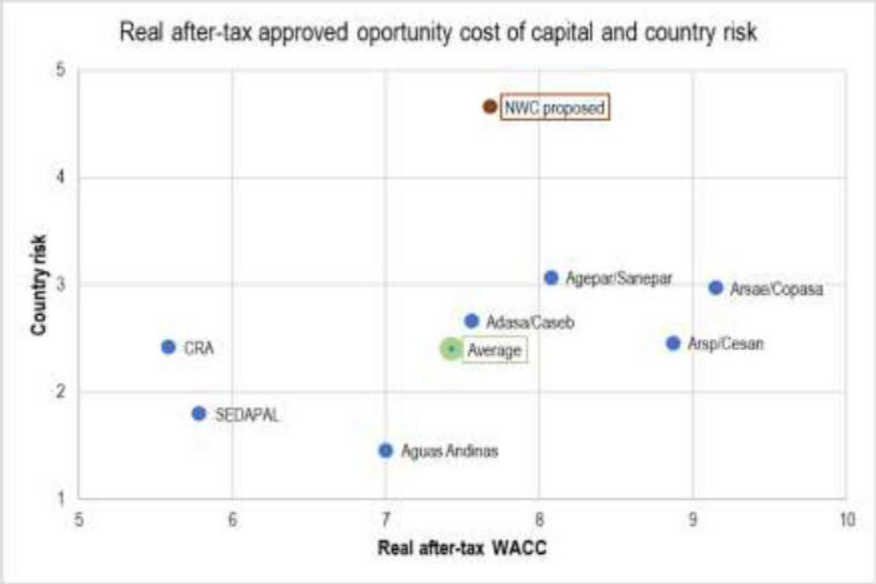
Table 38: Benchmark Analysis: Real After-Tax approved cost of capital for W&S utilities and Country Risk

Year	W&S Utility	Country	Utility	After-tax WACC	Country Risk
2024	Adasa/Caseb	Brazil	Companhia de Saneamento Ambiental do Distrito Federal	7.56	2.66
2025	Agepar/Sanepar	Brazil	Companhia de Saneamento do Paraná	8.08	3.07
2024	Arsae/Copasa	Brazil	Companhia de Saneamento de Minas Gerais	9.15	2.97
2026	Arsp/Cesan	Brazil	Companhia Espírito-Santense de Saneamento	8.87	2.46
2025	SEDAPAL	Peru	Servicio de Agua Potable y Alcantarillado de Lima	5.78	1.8
2026	CRA	Colombia	Comisión de Regulación de Agua Potable y Saneamiento Básico	5.58	2.42
2025	Aguas Andinas	Chile	Aguas Andinas S.A.	7	1.46
Average				7.43	2.4
2026	NWC proposed			7.68	4.66

Source: this consultancy

When expressed on an after-tax basis for comparability purposes, the resulting implied rate is broadly aligned with those allowed for peer utilities in the region, notwithstanding Jamaica's relatively higher country risk. This evidence supports the conclusion that the proposed return is consistent with regional regulatory practice and does not overstate the remuneration of capital.

Figure 8: Real After-Tax approved cost of capital for W&S utilities and Country Risk



Source: consultancy

6.2.1. Initial Regulatory Asset Base

The valuation of NWC's regulated assets is a key component of the Cost of Service, as the Regulatory Asset Base (RAB) determines both the regulatory return on invested capital (or opportunity cost of capital) and the associated regulatory depreciation included in the Revenue Requirement (RR).

6.2.1.1. Asset valuation alternatives

There is no single internationally accepted methodology for establishing an initial Regulatory Asset Base. Regulatory practice generally relies on one or a combination of the following approaches:

- **Historical / Accounting Cost Approach.**

Under this approach, the regulatory asset value is derived from the original acquisition or construction cost of the assets, less accumulated depreciation and applicable regulatory adjustments. Its principal advantages are objectivity, auditability and direct reconciliation with the Fixed Asset Register and financial statements. However, unadjusted historical costs may materially understate the economic value of long-lived infrastructure in inflationary environments.

- **Indexed Historical Cost / Current Cost Approach.**

Historical acquisition or construction costs are restated using appropriate price indices to preserve their purchasing-power or current-cost relevance. Regulatory depreciation is then determined consistently with the updated asset values and regulatory useful lives. Where representative asset-specific indices are available, this approach may provide a reasonable proxy for movements in replacement costs while preserving traceability to the original investment.

- **Replacement Cost Approaches.**

These methodologies estimate the present cost of replacing the existing assets or their productive capacity. Depreciated Replacement Cost (DRC) adjusts current replacement cost for the age, condition and remaining service potential of the assets. Optimised Depreciated Replacement Cost (ODRC) goes further by considering modern equivalent assets, efficient capacity and an optimised network configuration.

- **Financial / Economic Value Approaches.**

Under a financial approach, the value attributed to an asset or asset portfolio is linked to the economic benefits that the assets are capable of generating. A common application is a Value in Use (VIU) assessment based on the present value of expected future cash flows. Such approaches are particularly relevant when testing whether an asset value derived through an accounting, current-cost or replacement-cost methodology can be supported by the underlying economics of the regulated business.

International regulatory practice does not prescribe a single methodology. Water regulators use different approaches depending on the regulatory framework, the quality and availability of asset information, and the balance sought between customer protection, efficient investment incentives

and predictability of capital recovery. In a number of jurisdictions, an established regulatory capital value is maintained through a roll-forward mechanism rather than being subject to a full asset revaluation at every tariff review. Other regulators use indexed historical or accounting costs combined with regulatory eligibility, prudency and used-and-useful tests.

The approach applied to NWC should also be considered in the context of the regulatory framework previously established by the OUR. The OUR's Regulatory Framework for the National Water Commission, 2008–2013 stated that:

"The NWC shall continue to reflect a fair market value for assets used in the provision of utility services and update their value on an annual basis."

This requirement provides the regulatory basis for maintaining an asset value that reflects current economic conditions rather than relying exclusively on unadjusted historical accounting values.

6.2.1.2. FY2022/23 EY Asset Valuation and Economic Recoverability Assessment

The methodology applied to NWC combines an asset-based valuation with an economic recoverability assessment (see Annex: Initial Asset Base Calculation Methodology for the complete methodology).

As a first step, EY undertook a Fair Value assessment of the principal fixed asset classes used in the provision of NWC's water and wastewater services as at March 31, 2023. The valuation documentation presents, by asset class, historical cost, accounting Net Book Value, Replacement Cost New and the resulting Fair Value.

The aggregate Fair Value determined for the asset classes included within the EY assessment amounted to USD 1,590,978,113. This Fair Value represents the asset-based component of the valuation exercise.

However, the value ultimately used to establish the regulatory asset base was not determined solely by reference to the physical or replacement value of the assets. A second step was undertaken to assess the economic recoverability of the resulting Fair Value. In accordance with the methodology described by EY, the recoverable amount was determined by reference to the higher of:

- Value in Use (VIU); and
- Fair Value Less Costs of Disposal (FVLCD).

The Value in Use methodology represents a financial or income-based valuation approach, as it assesses the present value of the future economic benefits expected to be generated by the relevant asset portfolio. In practical terms, this requires the projection of future cash flows attributable to the assets and their discounting to present value using an appropriate discount rate.

The purpose of this second stage is therefore materially different from the initial asset valuation. While the Fair Value assessment establishes an estimate of the value of the underlying physical assets, the recoverability assessment tests whether that value can be economically supported by the future cash-generating capacity of the regulated business.

[redacted]

Based on EY's assessment, the recoverable amount was determined to represent approximately one-third of the FY2022/23 Fair Value. As a consequence, an Economic Obsolescence adjustment was applied, reducing the asset value from:

FY2022/23 Fair Value: USD 1,590,978,113

to:

Opening Regulatory Asset Base: USD 517,470,344

Accordingly, the opening RAB is not simply a Depreciated Replacement Cost or an indexed historical asset value. It represents a Fair Value-based asset valuation constrained by an economic recoverability assessment.

6.2.1.3. RAB Roll forward to FY2025/26

Once the regulatory opening asset value had been established, NWC did not undertake a new full revaluation of the existing asset base for each subsequent financial year.

Instead, the established RAB was rolled forward annually by:

- incorporating qualifying capital additions placed into service;
- applying the relevant asset indexation;
- deducting regulatory depreciation; and
- removing the regulatory value associated with qualifying asset disposals or retirements.

Capital additions are incorporated at acquisition cost. Under the methodology presented by NWC, additions are indexed on a pro-rata basis from their respective in-service dates to financial year-end and are depreciated from the date on which they are placed into service.

The resulting RAB roll-forward is summarised below:

Table 39: RAB Analysis

RAB Roll-Forward	FY2023/24 USD	FY2024/25 USD	FY2025/26 USD
Opening RAB	521,863,625	521,147,524	532,037,600
Capital Additions		3,755,549	16,694,780
Indexation	15,954,622	24,087,308	25,363,490
Regulatory Depreciation	(16,661,849)	(16,945,365)	(18,479,924)
Disposals / Retirements	(8,873)	(7,416)	(83,606)
Closing RAB	**521,147,524**	**532,037,600**	**555,532,340**

Source: Consultant's calculation based on NWC's data

Accordingly, the FY2022/23 regulatory opening asset value of USD 517.47 million is rolled forward through FY2023/24, FY2024/25 and FY2025/26 to produce a:

Closing Regulatory Asset Base as at March 31, 2026 of USD 555,532,340 equivalent to JMD 87,218,826,966.

This amount constitutes the **Initial Regulatory Asset Base for the FY2025/26 Base Year used in the present Cost-of-Service and tariff model.** This value is carried into the tariff model as the net initial regulatory asset base on which the applicable return on capital and subsequent regulatory depreciation are determined.

Based on the EY asset valuation exercise and the available historical information used to reconcile the regulatory asset classification, the Initial Regulatory Asset Base has been allocated by asset class as presented below.

Table 40: Initial Regulatory Asset Base (Initial RAB)

		2025-2026 (Base Year)		
Type of Asset	Unit	Gross Initial Asset Base	Annual Depreciation	Net Initial Asset Base
Generators	JMD	169,930,558	14,160,880	111,929,612
Vehicles	JMD	199,927,253	39,985,451	131,687,792
Other administrative assets	JMD	192,187,447	48,046,862	126,589,748
Meters	JMD	4,523,397,593	452,339,759	2,600,441,301
Potable water pipes	JMD	56,994,148,763	1,139,882,975	29,938,321,278
Pump stations	JMD	4,314,131,117	123,260,889	2,341,800,930
Storage facilities	JMD	2,551,011,099	51,020,222	1,419,179,151
Wastewater pipes	JMD	13,632,993,409	272,659,868	8,335,028,186
Wastewater treatment plants	JMD	5,822,602,028	145,565,051	3,018,404,055
Water treatment plants	JMD	11,517,310,690	255,940,238	6,589,973,181
Wells	JMD	2,404,451,192	60,111,280	1,415,020,507
Land - Admin	JMD	11,793,500,364	-	7,849,037,900
Land - Potable water	JMD	28,972,502,760	-	19,285,737,585
Land - Waste water	JMD	58,511,671	-	38,084,493
Building - Admin	JMD	2,544,485,222	63,612,131	1,675,997,823
Building - Potable water	JMD	2,765,796,900	69,144,922	1,822,241,840
Building - Waste water	JMD	795,931,290	19,898,282	519,351,585
Total	**JMD**	**149,252,819,356**	**2,755,628,809**	**87,218,826,966**

Source: Tariff & Financial Model

The Initial Net Regulatory Asset Base as of FY2025/26 amounts to JMD 87.218 billion, consistent with the closing RAB resulting from the EY/NWC regulatory asset roll-forward.

For purposes of the tariff model, it is also necessary to determine the corresponding Gross Regulatory Asset Base, since regulatory depreciation is calculated by asset class on the gross asset value and the model subsequently projects the evolution of both gross and net regulatory asset balances.

As EY provides the regulatory asset values on a net basis, the corresponding gross asset values were reconstructed through a gross-up calculation. This calculation uses the historical relationship between gross fixed assets and accumulated depreciation derived from NWC's accounting information.

Based on the available historical financial information, accumulated depreciation represents approximately 50% of the corresponding gross asset value on average.

Accordingly, the gross regulatory asset value by asset class was estimated by grossing up the net regulatory asset values using the relevant accumulated depreciation relationship. The resulting gross values provide the opening gross asset base required for the tariff model.

Regulatory depreciation was then recalculated by applying the applicable depreciation rate for each asset class to the corresponding reconstructed Gross Regulatory Asset Base.

This approach ensures consistency between:

- the Net Regulatory Asset Base determined through the EY/NWC valuation and roll-forward exercise;
- the reconstructed Gross Regulatory Asset Base required for depreciation calculations; and
- the subsequent projection of gross assets, accumulated regulatory depreciation and net regulatory asset values throughout the tariff period.

6.2.2. Depreciation Rates

As part of the project developed by EY (see Annex: Initial Asset Base Calculation Methodology for the complete methodology), depreciation rates were revised under parameters linked to the actual use, tear and wear of assets.

Table 41: Depreciation Rates

Asset category	Unit	Rate
Meters	%	10.00%
Potable water pipes	%	2.00%
Pump stations	%	2.86%
Generators	%	8.3%
Vehicles	%	20.0%
Other administrative assets	%	25.0%
Storage facilities	%	2.0%
Wastewater pipes	%	2.00%
Wastewater treatment plants	%	2.50%
Water treatment plants	%	2.22%
Wells	%	2.50%
Land - Admin	%	0.0%
Land - Customer	%	0.0%
Land - Potable water	%	0.0%
Land - Waste water	%	0.0%
Building - Admin	%	2.50%
Building - Customer	%	2.5%
Building - Potable water	%	2.50%
Building - Waste water	%	2.50%
Intangible	%	10%

Source: Tariff & Financial Model

6.2.3. Working Capital

The RAB, which forms the foundation for calculating the opportunity cost of capital, typically includes working capital. Utilities require working capital to manage the timing differences between expenditures and revenue collection. For example, if a company must pay $1 million per month to

contractors but collects revenues from customers only every two months, it would need to cover the $1 million gap using working capital. This financing need imposes an opportunity cost, which regulators recognize when setting allowed revenues.

However, in the case of the NWC, working capital has been consistently negative over several years. This persistent negative balance reflects the company's ongoing inability to generate sufficient cash flow from operations to meet its short-term liabilities. Such a financial position raises liquidity risks, limits NWC's capacity to meet immediate obligations, and constrains its ability to invest in system improvements, growth initiatives, or to absorb unexpected shocks.

Historical financial data for NWC from 2022 to 2026 clearly illustrates this trend of negative working capital.

Table 42: Historical working capital

		2022-2023	2023-2024	2024-2025	2025-2026
Net Working Capital Components	Unit	Year -3	Year -2	Year -1	Base Year
(+) Consumers' accounts receivable	JMD	5,616,457,995	6,474,498,169	5,707,655,470	4,590,149,488
(+) Other accounts receivable and prepaid expenses	JMD	2,933,447,278	2,318,552,414	2,518,841,037	6,096,255,313
(+) Inventories	JMD	2,265,832,888	2,825,028,775	2,759,061,916	2,860,141,279
(-) Trade accounts payable	JMD	22,480,906,873	26,186,684,957	27,799,632,259	31,035,170,290
(-) Other accounts payable	JMD	1,773,767,501	2,571,336,842	2,675,005,962	2,830,591,590
(-) Taxation payable	JMD	2,585,639,410	3,059,612,913	2,818,561,806	2,654,373,113
Net Working Capital	JMD	- **16,024,575,623**	- **20,199,555,354**	- **22,307,641,604**	- **22,973,588,913**

Source: Tariff & Financial Model

The largest component within the trade account payable consists of the General Consumption Tax (GCT) and debts owed to the Central Wastewater Treatment Company, including accrued interest on these debts, as detailed in the financial statement notes:

Table 43: Note 6 to 2023 unaudited balance sheet



Including negative working capital in the regulatory asset base for tariff-setting purposes would further aggravate NWC's financial situation. By reducing the RAB, this approach would lower the calculated opportunity cost of capital, resulting in a lower allowed revenue requirement. This, in turn, would perpetuate or even worsen the utility's financial fragility, undermining both operational sustainability and long-term service provision.

Therefore, **it is strongly recommended that, for regulatory purposes, working capital be included in the RAB at a value of zero.** This pragmatic approach prevents additional financial deterioration and avoids embedding structural imbalances into the tariff framework.

6.2.4. Investments Impacting the Regulatory Asset Base

The regulatory asset base is used to calculate the depreciation, and the opportunity cost of capital is projected by incorporating investments defined in the tariff period into the initial asset base. These investments are not part of the K-factor (Non-K Factor investments), since K-factor investments are financed and recognized differently (see Section 5.5.2).

The investment in the selected scenario is presented below by Process and Service, displayed as a total (developed at parish level in the investment model.

Table 44: Non-K Investments projection

			Plan non K				
			2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Service	Type of Asset	Unit	Year 1	Year 2	Year 3	Year 4	Year 5
W	Potable water pipes	JMD	10,747,328,375	9,584,766,351	9,998,918,628	7,976,066,249	8,269,855,391
W	Pump stations	JMD	107,286,194	522,948,364	-	82,973,506	-
WW	Wastewater pipes	JMD	9,549,122,522	9,948,312,826	5,112,153,470	5,352,498,978	5,618,747,521
WW	Wastewater treatment plants	JMD	1,487,002,650	1,516,698,750	1,515,952,200	1,520,431,500	1,520,431,500
W	Water treatment plants	JMD	10,000,000	-	-	-	-
Total	**Total**	**JMD**	**21,900,739,741**	**21,572,726,291**	**16,627,024,299**	**14,931,970,233**	**15,409,034,413**

Source: Tariff & Financial Model

6.2.5. Regulatory Asset Base Projection

Considering the initial asset base (presented in 6.2.1) and the required investments (6.2.4), the regulatory asset base can be projected along the tariff period.

The Gross Asset Base is calculated with the following formula

$$\boldsymbol{GRAB_t = GRAB_{t-1} + Inv_t \quad t = 1 \dots 5}$$

where:

- $GRAB_t$: gross regulatory asset base at the end of period t.
- $GRAB_{t-1}$: gross regulatory asset base at the end of period t-1.
- Inv_t : investment plan of the period t.

The Accumulated Depreciation is calculated with the following formula:

$$\boldsymbol{DepAcum_t = DepAcum_{t-1} + GRAB_t \, x \, \%Dep \quad t = 1 \dots 5}$$

where:

- $DepAcum_t$: accumulated depreciation at the end of period t.
- $DepAcum_{t-1}$: accumulated depreciation at the end of period t-1.
- $GRAB_t$: gross regulatory asset base at the beginning of period t.
- $\%Dep$: % of depreciation by type of asset.

The Net Asset Base is calculated with the following formula:

$$NRAB_t = GRAB_t - Acum\ Dep_t \quad t = 1 \ldots 5$$

where:

- $NRAB_t$: net regulatory asset base at the end of period t.
- $GRAB_t$: gross regulatory asset base at the end of period t.
- $DepAcum_t$: accumulated depreciation at the end of period t.

The figures associated with the components of the gross asset base, accumulated depreciations and net asset base for the selected investment scenario are presented below by Process and Asset type, and for exposition they were presented as a total (developed at parish level in the tariff and financial model).

Table 45: Regulatory Gross Asset Base evolution

		2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Type of Asset	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
Generators	JMD	169,930,558	169,930,558	169,930,558	169,930,558	169,930,558	169,930,558
Vehicles	JMD	199,927,253	199,927,253	199,927,253	199,927,253	199,927,253	199,927,253
Other administrative assets	JMD	192,187,447	192,187,447	192,187,447	192,187,447	192,187,447	192,187,447
Meters	JMD	4,523,397,593	4,523,397,593	4,523,397,593	4,523,397,593	4,523,397,593	4,523,397,593
Potable water pipes	JMD	56,994,148,763	67,741,477,138	77,326,243,489	87,325,162,117	95,301,228,367	103,571,083,758
Pump stations	JMD	4,314,131,117	4,421,417,310	4,944,365,675	4,944,365,675	5,027,339,181	5,027,339,181
Storage facilities	JMD	2,551,011,099	2,551,011,099	2,551,011,099	2,551,011,099	2,551,011,099	2,551,011,099
Wastewater pipes	JMD	13,632,993,409	23,182,115,932	33,130,428,758	38,242,582,228	43,595,081,206	49,213,828,728
Wastewater treatment plants	JMD	5,822,602,028	7,309,604,678	8,826,303,428	10,342,255,628	11,862,687,128	13,383,118,628
Water treatment plants	JMD	11,517,310,690	11,527,310,690	11,527,310,690	11,527,310,690	11,527,310,690	11,527,310,690
Wells	JMD	2,404,451,192	2,404,451,192	2,404,451,192	2,404,451,192	2,404,451,192	2,404,451,192
Land - Admin	JMD	11,793,500,364	11,793,500,364	11,793,500,364	11,793,500,364	11,793,500,364	11,793,500,364
Land - Potable water	JMD	28,972,502,760	28,972,502,760	28,972,502,760	28,972,502,760	28,972,502,760	28,972,502,760
Land - Waste water	JMD	58,511,671	58,511,671	58,511,671	58,511,671	58,511,671	58,511,671
Building - Admin	JMD	2,544,485,222	2,544,485,222	2,544,485,222	2,544,485,222	2,544,485,222	2,544,485,222
Building - Potable water	JMD	2,765,796,900	2,765,796,900	2,765,796,900	2,765,796,900	2,765,796,900	2,765,796,900
Building - Waste water	JMD	795,931,290	795,931,290	795,931,290	795,931,290	795,931,290	795,931,290
Total	**JMD**	**149,252,819,356**	**171,153,559,098**	**192,726,285,389**	**209,353,309,688**	**224,285,279,921**	**239,694,314,334**

Source: Tariff & Financial Model

Table 46: Depreciation evolution

		2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Type of Asset	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
Other administrative assets	JMD	48,046,862	48,046,862	48,046,862	30,496,024	-	-
Generators	JMD	14,160,880	14,160,880	14,160,880	14,160,880	14,160,880	14,160,880
Vehicles	JMD	39,985,451	39,985,451	39,985,451	39,976,183	11,740,708	-
Meters	JMD	452,339,759	452,339,759	452,339,759	452,339,759	424,109,721	331,946,624
Potable water pipes	JMD	1,139,882,975	1,139,882,975	1,354,829,543	1,546,524,870	1,746,503,242	1,906,024,567
Pump stations	JMD	123,260,889	123,260,889	126,326,209	141,267,591	141,267,591	143,638,262
Storage facilities	JMD	51,020,222	51,020,222	51,020,222	51,020,222	51,020,222	51,020,222
Wastewater pipes	JMD	272,659,868	272,659,868	463,642,319	662,608,575	764,851,645	871,901,624
Wastewater treatment plants	JMD	145,565,051	145,565,051	182,740,117	220,657,586	258,556,391	296,567,178
Water treatment plants	JMD	255,940,238	255,940,238	256,162,460	256,162,460	256,162,460	256,162,460
Wells	JMD	60,111,280	60,111,280	60,111,280	60,111,280	60,111,280	60,111,280
Building - Admin	JMD	63,612,131	63,612,131	63,612,131	63,612,131	63,612,131	63,612,131
Building - Potable water	JMD	69,144,922	69,144,922	69,144,922	69,144,922	69,144,922	69,144,922
Building - Waste water	JMD	19,898,282	19,898,282	19,898,282	19,898,282	19,898,282	19,898,282
Total	**JMD**	**2,755,628,809**	**2,755,628,809**	**3,202,020,436**	**3,627,980,765**	**3,881,139,474**	**4,084,188,432**

Source: Tariff & Financial Model

[redacted]

Table 47: Regulatory Net Asset Base evolution

		2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Asset	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
Generators	JMD	111,929,612	97,768,733	83,607,853	69,446,973	55,286,093	41,125,213
Vehicles	JMD	131,687,792	91,702,341	51,716,891	11,740,708	0	0
Other administrative assets	JMD	126,589,748	78,542,886	30,496,024	0	0	0
Meters	JMD	2,600,441,301	2,148,101,542	1,695,761,783	1,243,422,023	819,312,302	487,365,679
Potable water pipes	JMD	29,938,321,278	39,545,766,677	47,775,703,485	56,228,097,244	62,457,660,251	68,821,491,075
Pump stations	JMD	2,341,800,930	2,325,826,235	2,722,448,391	2,581,180,800	2,522,886,715	2,379,248,453
Storage facilities	JMD	1,419,179,151	1,368,158,929	1,317,138,707	1,266,118,485	1,215,098,263	1,164,078,041
Wastewater pipes	JMD	8,335,028,186	17,611,490,840	27,096,161,347	31,545,706,242	36,133,353,576	40,880,199,473
Wastewater treatment plants	JMD	3,018,404,055	4,359,841,654	5,693,800,287	6,989,094,902	8,250,970,011	9,474,834,333
Water treatment plants	JMD	6,589,973,181	6,344,032,944	6,087,870,484	5,831,708,024	5,575,545,564	5,319,383,104
Wells	JMD	1,415,020,507	1,354,909,227	1,294,797,947	1,234,686,667	1,174,575,387	1,114,464,108
Land - Admin	JMD	7,849,037,900	7,849,037,900	7,849,037,900	7,849,037,900	7,849,037,900	7,849,037,900
Land - Potable water	JMD	19,285,737,585	19,285,737,585	19,285,737,585	19,285,737,585	19,285,737,585	19,285,737,585
Land - Waste water	JMD	38,084,493	38,084,493	38,084,493	38,084,493	38,084,493	38,084,493
Building - Admin	JMD	1,675,997,823	1,612,385,692	1,548,773,562	1,485,161,431	1,421,549,301	1,357,937,170
Building - Potable water	JMD	1,822,241,840	1,753,096,918	1,683,951,995	1,614,807,073	1,545,662,150	1,476,517,228
Building - Waste water	JMD	519,351,585	499,453,303	479,555,020	459,656,738	439,758,456	419,860,174
Total	**JMD**	**87,218,826,966**	**106,363,937,898**	**124,734,643,754**	**137,733,687,288**	**148,784,518,047**	**160,109,364,028**

Source: Tariff & Financial Model

6.2.6. Cost of Capital Results

This section presents the results associated with the cost of capital (CK) for the test year and the next 5 years of the tariff period.

As mentioned in 5.5, the CK is the sum of two components:

- The Maintenance Cost of Capital (MCC) or depreciation, calculated by applying the depreciation rates upon the gross regulatory asset base.
- The Opportunity Cost of Capital (OCC), calculated as the product between the net regulatory asset base and the regulated rate of return to recognize a reasonable return on investment. The rate applied was the WACC.

The costs of both components for the selected investment scenario are presented below. The figures are shown by Process and Asset type, presented as a total (developed at parish level in the tariff and financial model).

[redacted]

Table 48: Opportunity cost of capital

		2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Type of Asset	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
Generators	JMD	12,894,291	12,894,291	11,262,958	9,631,625	8,000,291	6,368,958
Vehicles	JMD	15,170,434	15,170,434	10,564,110	5,957,786	1,352,530	0
Other administrative assets	JMD	14,583,139	14,583,139	9,048,140	3,513,142	0	0
Meters	JMD	299,570,838	299,570,838	247,461,298	195,351,757	143,242,217	94,384,777
Potable water pipes	JMD	3,448,894,611	3,448,894,611	4,555,672,321	5,503,761,042	6,477,476,803	7,195,122,461
Pump stations	JMD	269,775,467	269,775,467	267,935,182	313,626,055	297,352,028	290,636,550
Storage facilities	JMD	163,489,438	163,489,438	157,611,909	151,734,379	145,856,849	139,979,320
Wastewater pipes	JMD	960,195,247	960,195,247	2,028,843,745	3,121,477,787	3,634,065,359	4,162,562,332
Wastewater treatment plants	JMD	347,720,147	347,720,147	502,253,759	655,925,793	805,143,733	950,511,745
Water treatment plants	JMD	759,164,910	759,164,910	730,832,595	701,322,680	671,812,764	642,302,849
Wells	JMD	163,010,362	163,010,362	156,085,543	149,160,723	142,235,904	135,311,085
Land - Admin	JMD	904,209,166	904,209,166	904,209,166	904,209,166	904,209,166	904,209,166
Land - Customer	JMD	-	-	-	-	-	-
Land - Potable water	JMD	2,221,716,970	2,221,716,970	2,221,716,970	2,221,716,970	2,221,716,970	2,221,716,970
Land - Waste water	JMD	4,387,334	4,387,334	4,387,334	4,387,334	4,387,334	4,387,334
Building - Admin	JMD	193,074,949	193,074,949	185,746,832	178,418,714	171,090,597	163,762,479
Building - Customer	JMD	-	-	-	-	-	-
Building - Potable water	JMD	209,922,260	209,922,260	201,956,765	193,991,270	186,025,775	178,060,280
Building - Waste water	JMD	59,829,303	59,829,303	57,537,020	55,244,738	52,952,456	50,660,174
Total	**JMD**	**10,047,608,867**	**10,047,608,867**	**12,253,125,646**	**14,369,430,960**	**15,866,920,776**	**17,139,976,479**

Source: Tariff & Financial Model

6.3. Revenue Requirement Results and Average Tariff Variation

6.3.1. Revenue Requirement Results

Considering all the elements outlined in section 5, the cost of service, or RR, has been calculated using both a test-year approach and a forward-looking approach over the tariff period. While the test-year calculation constitutes the primary basis for the assessment in this report, the forward-looking results illustrate the projected evolution of the RR throughout the tariff period.

The RR is calculated based on projected baseline operating costs, excluding efficiency adjustments. The X-factor is subsequently applied through the tariff calculation to ensure the recovery of efficient OPEX.

The Excel-based Tariff and Financial Model facilitate simulations and assessments of the impact of these projections on tariffs. Results are presented at an aggregate level; however, the model also allows calculations to be performed at parish level.

Table 49: Revenue Requirement

		2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Cost Component	Unit	Base Year JDM	Year 1	Year 2	Year 3	Year 4	Year 5
Opportunity Cost	JMD	10,047,608,867	10,047,608,867	12,253,125,646	14,369,430,960	15,866,920,776	17,139,976,479
Depreciation	JMD	2,755,628,809	2,755,628,809	3,202,020,436	3,627,980,765	3,881,139,474	4,084,188,432
OPEX	JMD	50,604,935,123	51,659,150,191	52,660,027,915	53,451,598,343	54,221,225,389	54,952,915,769
TOTAL RR	**JMD**	**63,408,172,799**	**64,462,387,867**	**68,115,173,996**	**71,449,010,068**	**73,969,285,639**	**76,177,080,680**

Cost Component	2025-2026 Base Year JDM	2025-2026 %
Opportunity Cost	10,047,608,867	16%
Depreciation	2,755,628,809	4%
OPEX	50,604,935,123	80%
TOTAL RR	**63,408,172,799**	**100%**

Source: Tariff & Financial Model

6.3.2. Verified Revenue Calculation

To calculate the variation in the average tariff, it is necessary to calculate the VR using the formula presented in section 0. The VR reflects the revenue expected in the tariff cycle if the current tariff remains unchanged. It is calculated by multiplying the current tariff and the projected physical quantities for the tariff period.

The current average tariffs[15] applied were calculated by processing the billing base, and the results are the following:

Table 50: Current average tariffs

Metric Metered and Estimated (all volumes transformed to metric)					
Customer Class	Service	Unit	Total Billing	Total Volume	Average Tariff (prices May 2026)
Residential	W	JMD/m3	18,347,133,709	55,777,840	329
Commercial	W	JMD/m3	10,314,223,888	16,828,967	613
Condominium	W	JMD/m3	338,983,046	1,045,695	324
Government	W	JMD/m3	3,025,040,805	5,693,257	531
School	W	JMD/m3	696,138,085	2,674,930	260
Employee	W	JMD/m3	57,532,979	264,660	217
Total	**W**	**JMD/m3**	**32,779,052,512**	**82,285,349**	**398**
Residential	WW	JMD/m3	3,875,025,312	16,170,828	240
Commercial	WW	JMD/m3	3,011,090,113	4,432,240	679
Condominium	WW	JMD/m3	162,200,870	457,690	354
Government	WW	JMD/m3	866,686,737	1,511,066	574
School	WW	JMD/m3	125,659,132	444,373	283
Employee	WW	JMD/m3	107,878,995	151,209	713
Total	**WW**	**JMD/m3**	**8,148,541,160**	**23,167,405**	**352**
Total	**W+WW**	**JMD/m3**	**40,927,593,672**	**105,452,753**	**388**

Source: Tariff & Financial Model

The volumes projected in the selected scenario arise from the estimations made in Annex: Technical Model Report.

[15] To calculate this average tariff the following concepts of the billing base were considered: Billed JMD Water, Billed JMD Sewerage and SERV_CHG.

[redacted]

Table 51: Projected consumption volumes

			2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Service	Category	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
W	Residential	m3	55,777,840	56,882,695	58,016,020	59,181,100	60,377,935	61,607,620
W	Commercial	m3	16,828,967	16,902,405	16,976,255	17,047,285	17,120,723	17,194,573
W	Condominium	m3	1,045,695	1,045,695	1,045,695	1,045,695	1,045,695	1,045,695
W	Government	m3	5,693,257	5,693,257	5,693,257	5,693,257	5,693,257	5,693,257
W	School	m3	2,674,930	2,674,930	2,676,343	2,676,343	2,677,756	2,677,756
W	Employee	m3	264,660	226,884	226,942	226,942	226,942	227,000
WW	Residential	m3	16,170,828	17,011,573	17,908,152	18,866,161	19,890,771	20,989,519
WW	Commercial	m3	4,432,240	4,444,920	4,457,930	4,470,610	4,483,106	4,496,116
WW	Condominium	m3	457,690	457,690	457,690	457,690	457,690	457,690
WW	Government	m3	1,511,066	1,514,579	1,516,751	1,520,713	1,525,204	1,526,399
WW	School	m3	444,373	444,373	444,373	444,373	446,316	448,276
WW	Employee	m3	151,209	151,209	151,209	151,302	151,302	151,302
W + WW	**TOTAL**	**m3**	**105,452,753**	**107,450,208**	**109,570,616**	**111,781,470**	**114,096,696**	**116,515,201**

	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Service	Year 1	Year 2	Year 3	Year 4	Year 5
W	83,425,865	84,634,512	85,870,622	87,142,308	88,445,901
WW	24,024,343	24,936,104	25,910,848	26,954,388	28,069,300
W + WW	**107,450,208**	**109,570,616**	**111,781,470**	**114,096,696**	**116,515,201**

Source: Tariff & Financial Model

With the consumption volumes projected and the average tariffs, the VR is calculated. The results are shown in the following table.

Table 52: Verified Revenue

			2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Service	Category	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
W	Residential	JMD	18,347,133,709	18,710,556,215	19,083,343,425	19,466,575,879	19,860,253,580	20,264,736,706
W	Commercial	JMD	10,314,223,888	10,359,232,946	10,404,494,565	10,448,027,631	10,493,036,689	10,538,298,308
W	Condominium	JMD	338,983,046	338,983,046	338,983,046	338,983,046	338,983,046	338,983,046
W	Government	JMD	3,025,040,805	3,025,040,805	3,025,040,805	3,025,040,805	3,025,040,805	3,025,040,805
W	School	JMD	696,138,085	696,138,085	696,505,884	696,505,884	696,873,684	696,873,684
W	Employee	JMD	57,532,979	49,321,014	49,333,630	49,333,630	49,333,630	49,346,246
WW	Residential	JMD	3,875,025,312	4,076,493,450	4,291,341,252	4,520,909,567	4,766,437,495	5,029,731,151
WW	Commercial	JMD	3,011,090,113	3,019,704,477	3,028,542,804	3,037,157,168	3,045,646,556	3,054,484,883
WW	Condominium	JMD	162,200,870	162,200,870	162,200,870	162,200,870	162,200,870	162,200,870
WW	Government	JMD	866,686,737	868,701,683	869,947,898	872,220,260	874,796,095	875,481,422
WW	School	JMD	125,659,132	125,659,132	125,659,132	125,659,132	126,208,479	126,762,697
WW	Employee	JMD	107,878,995	107,878,995	107,878,995	107,945,138	107,945,138	107,945,138
TOTAL	**TOTAL**	**JMD**	**40,927,593,672**	**41,539,910,719**	**42,183,272,307**	**42,850,559,011**	**43,546,756,067**	**44,269,884,956**

		2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Service	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
W	JMD	32,779,052,512	33,179,272,112	33,597,701,356	34,024,466,876	34,463,521,434	34,913,278,795
WW	JMD	8,148,541,160	8,360,638,607	8,585,570,952	8,826,092,135	9,083,234,633	9,356,606,161
TOTAL VR	**JMD**	**40,927,593,672**	**41,539,910,719**	**42,183,272,307**	**42,850,559,011**	**43,546,756,067**	**44,269,884,956**

Source: Tariff & Financial Model

6.3.3. Average tariff variation

The required average tariff variation is calculated under both the test-year and forward-looking approaches.

Under the test-year approach, the tariff adjustment corresponds to the ratio between the RR and the VR for the selected test year:

$$OTR_{TY} = \frac{RR_{TY}}{VR_{TY}} - 1$$

Under the forward-looking approach, the tariff adjustment is calculated as the ratio between the present value of the RR and the present value of the VR over the tariff period.

Where:

- OTR: tariff adjustment index resulting from the Ordinary Tariff Review process.
- RR_{TY} and VR_{TY}: Revenue Requirement and Verified Revenue for the test year.
- PV_{RR} and PV_{VR} : present value of the Revenue Requirement and Verified Revenue, respectively, over the tariff period.

Both results indicate the average tariff variation that, when applied to current tariffs, enables NWC to recover efficient operating costs, meet debt-service obligations associated with investment financing, and earn a reasonable return on capital equivalent to the WACC.

The results under the test-year and forward-looking approaches are presented below, together with their respective impact on the average water and wastewater tariff. The percentage variations represent the change relative to the current tariffs presented in this report.

Table 53: Average Tariff Variation

		2025-2026
Concept	Unit	Base Year
Revenue Required	JMD	63,408,172,799
Revenue Verified	JMD	40,927,593,672
Average Tariff Variation	%	**54.9%**

Source: Tariff & Financial Model

6.3.4. Long Run Marginal Cost Analysis

Economics define marginal cost as the increase in the total cost due to the production of an additional unit of a good or service. Considering the Terms of Reference, its guidelines establish that LRMC should consider the following:

1) The LRMC for water production, distribution and supply and for the supply of one additional unit of capacity to meet peak usage on the water supply system.

2) The SRMC (and other variable O&M) production, distribution and supply of water; and

3) The economic cost of supply (covering customer service and facilities and administration and general operation).

The NWC has identified "Scenario B" as the set of investments to be considered for projections and determining the marginal costs. OPEX projections, Depreciation & Amortization and the Opportunity Cost of capital have been also estimated both with and without effects on Total costs of service derived from those investments.

The concept of marginal cost must be cautiously addressed when considering providing goods or services where strong economies of scale are detected, such as the water and sanitation sector. That is why it is rarely used as a contrast indicator with the invoiced price. Specifically, if there are persistent economies of scale, i.e., continuous reductions in the average provision cost, so the strictly calculated Marginal Cost does not adequately reflect a social optimal point for determining rates. Instead, **it is more convenient to apply a contrast between the determined price and the long-term average cost.**

Estimating the cost of providing, on average, a unit of the service in the long term must consider all the costs involved, because it is in the long term that the company is able to establish with some flexibility the efficient amount of capital, labor and other inputs, with an optimal organization and resources allocation. This optimized the long-term definition should promote the efficient use of resources and the adequate selection of investment projects, which over the years lead to reductions in the provision average cost for the benefit of the provider, the customer and society as a whole.

Therefore, estimating the required LRMC as a contrast of the projected rates for each service is set as the average total unit cost of each service in the margin.

The average unit cost at the margin arises from analyzing the total costs for each service based on the "efficient" projection, which incorporates all the effects considered at the technical and organizational level as a provision to lower total cost in each year. For each service, the annual unit cost of provision is determined based on the expected production volumes. Finally, the annual average for the tariff period is estimated considering the WACC rate for discounting values. In this way, strong incentives are ensured for the company to achieve the projected efficiencies.

If the typical economies of scale in providing water and sanitation services are maintained, the unit cost of providing, on average, each service arises within the margin of total costs, that is, considering the costs involved in providing customer with the last unit of water and sanitation, in line with the established hypotheses and definitions. The annual values differ because the optimal situation is not achieved immediately but a period for resource optimization is required to be later translated into effective cost reductions.

Therefore, the values obtained for the average cost are as follows:

Service	Unitary Long Run cost, in the margin
Water	308.53
Wastewater	463.34

Any methodology for long-term cost determination is very sensitive to the analysis horizon. Investments made generally require a longer period of analysis to allow their effects to be reflected. In turn, certain costs relating to new infrastructure and equipment are only computable if a more extended analysis horizon is also considered. Here, the 5 years of the tariff period were considered, which only allows us to completely capture the portion of costs derived from the investments and their derived effects exclusively affecting the years considered. In any case, the values obtained allow establishing adequate benchmarking to evaluate the establishment of a new tariff framework.

It is worth noting that the OUR did not mention marginal costs data or results in its Determination Notice 2019. Moreover, it stated that "*A Marginal Cost Study was costly, time consuming, data driven and required a detailed long-term plan, and having regard to this, the OUR would not consider it prudent for such a study to be undertaken at this time*." It also mentioned that "*Cost reflective water and sewerage tariffs should be an output derived from the cost-of-service study*.", meaning that any comparison of the proposed tariff structure with marginal costs deriving from investments should be considered as indicative.

In addition, to develop the LRMC analysis for specific projects, three specific projects were selected from the investment plan included in the technical model of this tariff study. Due to the nature and goals of the analysis, the projects meeting the following criteria were selected:

- Service expansion projects (increase in volumes and/or connections) .
- Implementation and development within the tariff period.

Three Wastewater service expansion projects have been identified by the consulting team and validated by NWC for this development

- Kencot Sewerage
- Mona Sewerage
- Munroe Rd/Wellington Rd Sewerage

No project was identified that meets the criteria set for Water service.

Table 54: Selected projects for the analysis of LRMC

	New conections	Volume [m3/day]	Investmen (JMD)	Year of Investment
Kencot Sewerage	190	120	89,000,000	2023
Mona Sewerage	120	76	55,000,000	2022
Munroe Rd / Wellington Rd Sewerage	520	328	369,000,000	2023

The identified projects are executed in the year defined in the investment plan and, once in operation, they impact by increasing the number of customers and service volumes, starting in 2023. The projects remain in operation throughout the tariff period and no new investments are required, excluding the defined O&M costs.

Unlike previous estimates for specific projects, where only partial projections of the future cost for each project were made, the methodology followed for estimating the LRMC was based on the availability of the tariff and financial model. The model provides a more comprehensive computation of the effects of each project on the technical, economic and financial evolution of the entity, as it computes not only the proxy cost estimates, but the indirect effects that each project entails for the company general operation as well. This methodology does not require partial calculations of fixed or variable cost per unit of service; the calculation of the marginal cost for each project follows similar estimating characteristics and parameters, resulting in a more robust computation value.

Table 55: Base scenario for analysis of LRMC

Concept	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
WW conections	30,926	31,359	31,791	32,223	32,656	33,088
WW Volumes	5,630,563	6,978,687	7,076,397	7,173,881	7,271,365	7,369,075
Revenue Requirement	51,023,993,440	59,373,762,634	64,378,745,841	69,366,190,597	73,598,576,909	80,853,809,574
Revenue Requirement - Present Value	**249,149,904,144**					

The starting point of such analysis is the projected base scenario followed by a "What if?" hypothetical type of exercise to evaluate and compare the quantitative impacts on all the model variables if one or more projects are NOT executed.

It is important to consider that, when a project is NOT executed, various technical and economic-financial implications arise. On the one hand, the investments made in a certain period are reduced, which will affect the asset base in service and its remuneration (Opportunity Cost and Depreciation & Amortization) and the quantitative expansion of the service in the parishes defined by the location of the project is modified (Volumes and Connections). The resulting expansion of the service implies new revenues for the company, affected by the expected behavior for customer service and the invoiced amount collection, including the effects of the stipulated K-factor and X-factor rates. Effects on operating costs (OPEX) are also derived, assuming that the project does not substantially alter the current operating behavior patterns of the service as a whole for the reference parish.

All these effects are captured by the model and are totaled in the Revenue Requirement of each scenario. Once the execution of each of the projects is EXCLUDED, the hypothetical situation is calculated leading to the Present Value of the Revenue Requirement WITHOUT the specified Project to be obtained. This leads to the specific calculation of the LRMC for each project and for the whole set of projects.

Table 56: Marginal effect and LRMC estimated for each selected project

	Overall	Revenue Requirement (JMD)					
	Volume [m3]	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	Present Value
Kencot Sewerage	-219,000	-159,418	-1,956,157	-1,938,868	-1,731,107	-1,503,346	-5,097,244
Mona Sewerage	-138,700	-98,517	-1,208,861	-1,198,177	-1,069,785	-929,034	-3,149,982
Munroe Rd / Wellington Rd Sewerage	-598,600	-660,957	-8,110,357	-8,038,678	-7,177,286	-6,232,974	-21,133,518

	Specific LRMC		Avg, LRMC	
	JMD / m3	JMD / Custom / year	JMD / m3	JMD / Custom / year
Kencot Sewerage	23.28	26,827.60	30.72	35,398.49
Mona Sewerage	22.71	26,249.85		
Munroe Rd / Wellington Rd Sewerage	35.30	40,641.38		

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Based on the results obtained, the projects show varied performances for the period analyzed. The "Mona Sewerage" project turns out to be the most profitable as it presents the lowest marginal cost for each m3 as well as for each new connection, while the "Kencot Sewerage" project is slightly less profitable and shows a somewhat higher marginal cost. The "Munroe Rd/Wellington Rd Sewerage" project presents a higher marginal cost.

It is important to consider that this estimate does not compute the differences in the residual value of the assets at the end of the period under analysis, assets that differ significantly from one project to another, as well as the capacity to generate new future revenue for the company in each case.

6.4. K Factor

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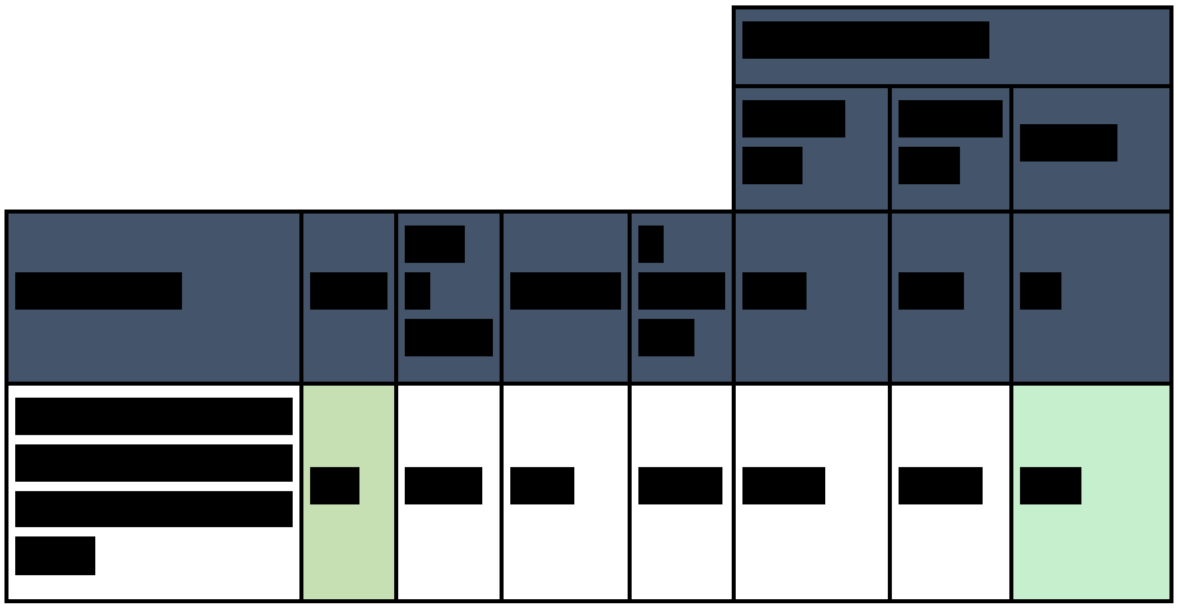
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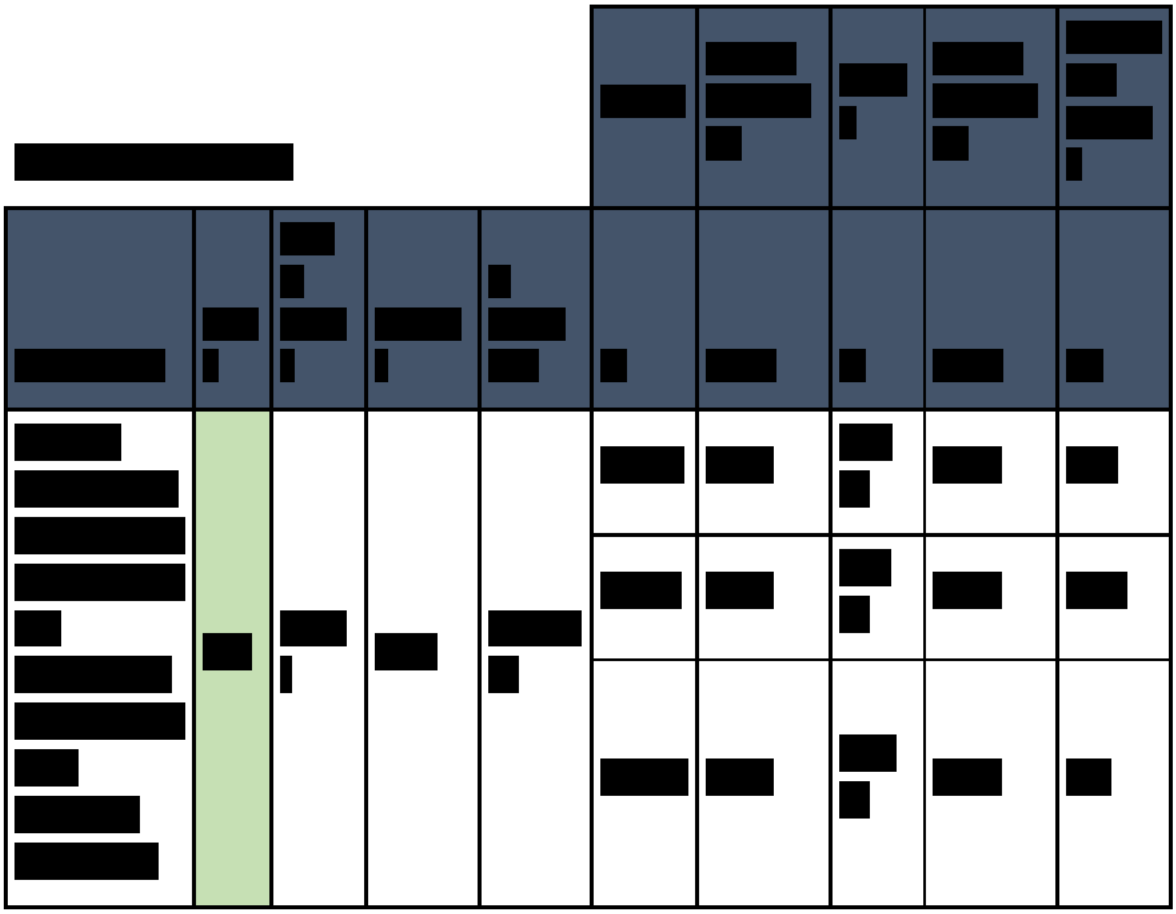


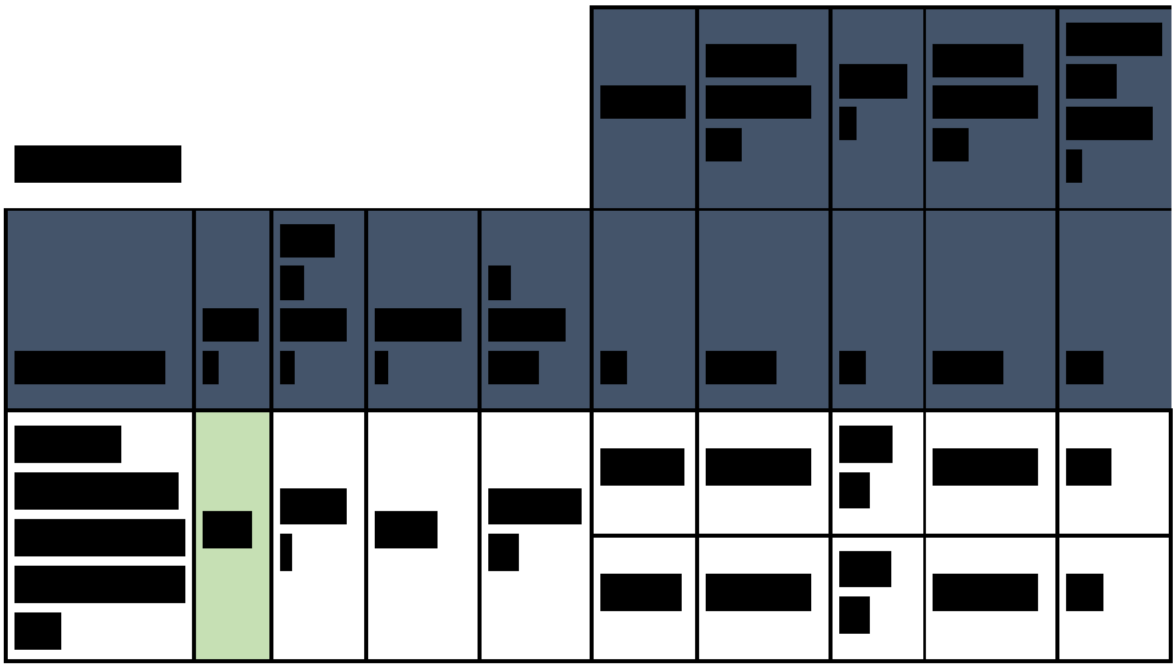
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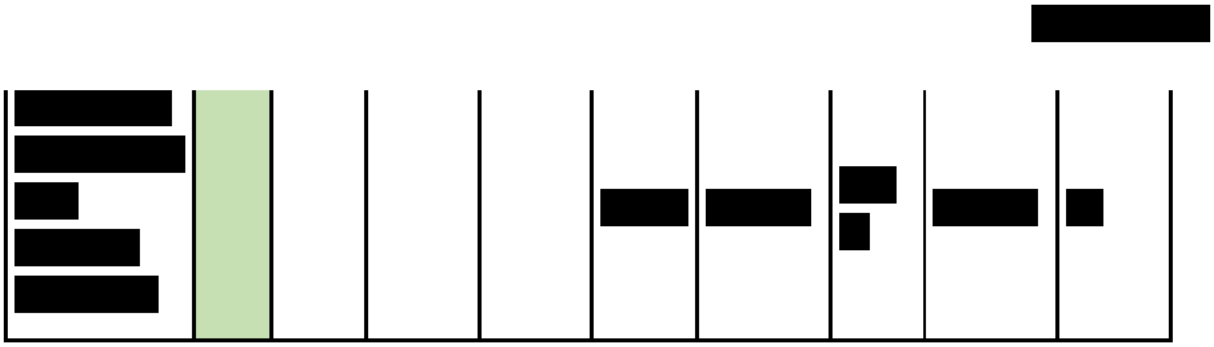
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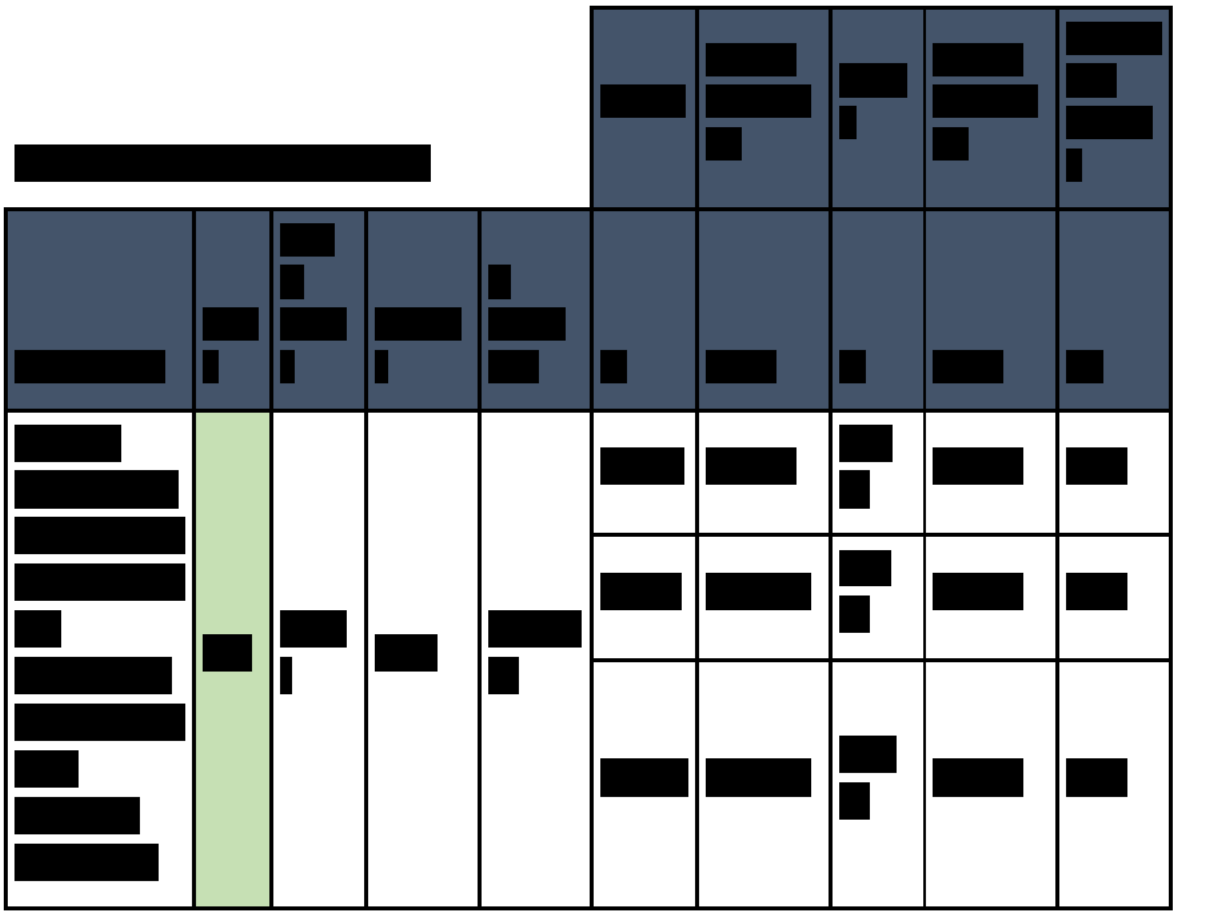
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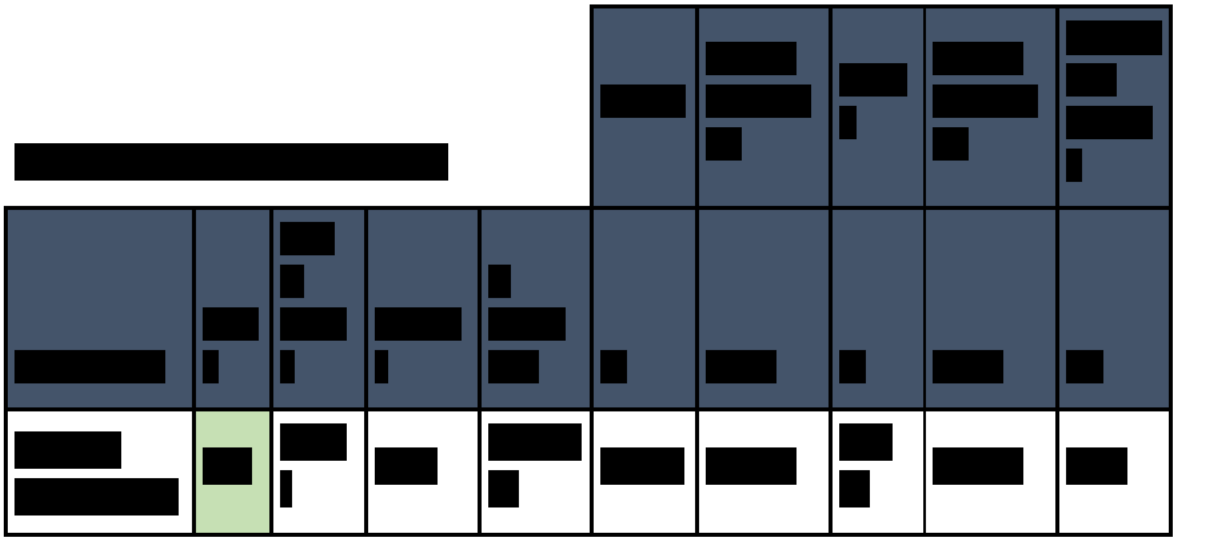
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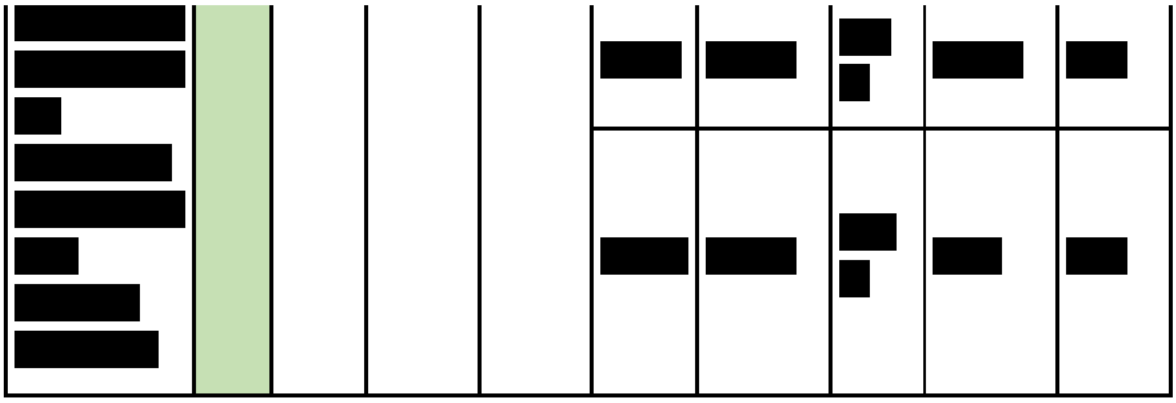








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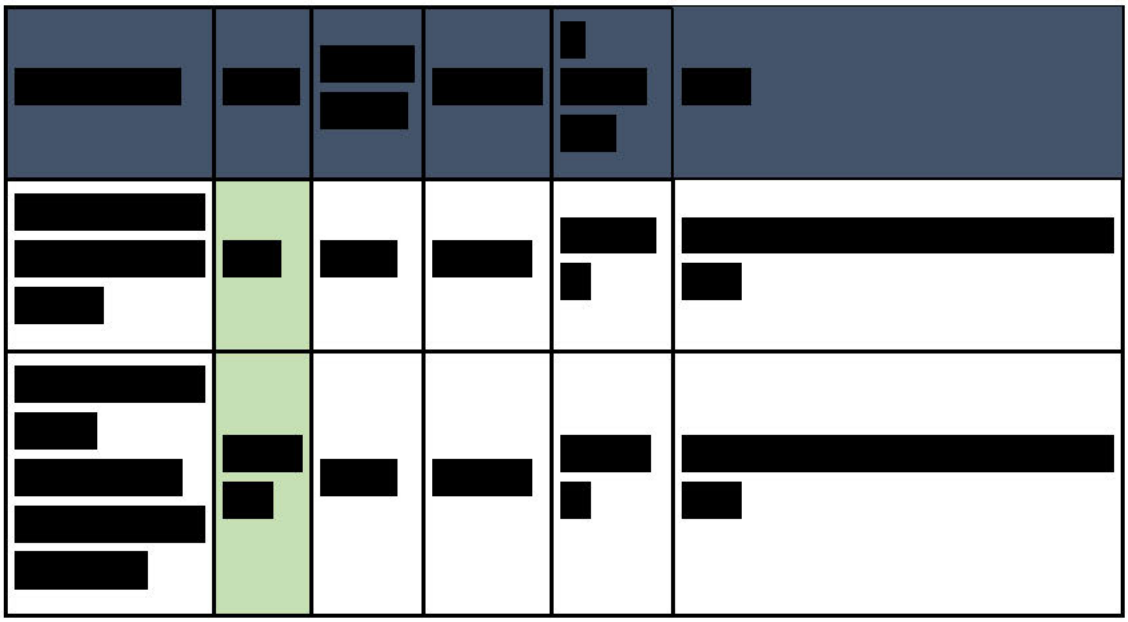
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6.4.2. K Factor Program for the Next Tariff Period

Although the Revenue Requirement and the initial tariff determination under the present methodology are based on the FY2025/26 Base Year, certain components of the tariff framework necessarily require a forward-looking assessment.

This is particularly the case for the K-Factor and X-Factor. The K-Factor is determined by reference to the capital investment programme expected to be implemented during the forthcoming tariff period, while the X-Factor reflects the efficiency improvements expected to arise over that period, including those associated with the implementation of K-Factor projects and other efficiency initiatives.

Accordingly, the use of forward-looking information for purposes of determining the K-Factor and X-Factor does not modify the Base Year methodology used to establish the Cost of Service and Revenue Requirement. Rather, it represents a complementary prospective assessment required to determine the appropriate tariff adjustment mechanisms applicable during the tariff period.

6.4.2.1. Purpose, Proposed Expansion and Extension of the K-Factor

The K-Factor was established by the OUR as a dedicated tariff mechanism to provide NWC with funding for specific capital-intensive programmes, particularly rehabilitation and efficiency-enhancing investments that may not generate a commensurate or immediate increase in revenues.

Its application has focused on three core areas:

- Rehabilitation of wastewater treatment plants to achieve compliance with National Environment and Planning Agency (NEPA) effluent standards.
- Reduction of non-revenue water (NRW).
- Expansion of wastewater collection networks in Kingston and St. Andrew to increase flows to the Soapberry Wastewater Treatment Plant and reduce the average cost of treatment.

As part of this tariff review, NWC proposes the inclusion of a fourth core area: renewable energy and energy efficiency (RE/EE) investments supporting water supply and wastewater operations. The initial focus would be on solar photovoltaic systems and associated battery storage, with scope for subsequent expansion to energy-efficient motors, variable frequency drives and power factor correction measures, subject to OUR approval.

These investments align with the K-Factor's purpose by funding capital improvements that enhance operational efficiency and service reliability, with benefits realised primarily through reduced expenditure rather than increased revenues. NWC is currently prioritising 20 facilities for inclusion in its EE/RE initiative. The proposed investments would reduce reliance on purchased electricity, lower exposure to energy price fluctuations and, where supported by appropriate battery storage, strengthen continuity of essential services during grid disruptions. They would also complement NRW reduction investments and contribute to lower greenhouse gas emissions.

NWC therefore requests that qualifying RE/EE projects be expressly included within the approved scope of K-Factor funding. Project submissions would demonstrate investment costs, expected savings and service benefits, supported by measurable performance indicators. Funding and subsequent tariff treatment would be reconciled to avoid duplicate recovery of capital costs and ensure that realised efficiency benefits are appropriately reflected in future tariff reviews.

NWC further requests an extension of the K-Factor from its existing end date of 31 December 2032 to March 2058, to support the phased implementation of approved programmes and repayment of associated long-term financing. The extended horizon would provide greater financing certainty and allow capital costs to be spread over a longer period, helping to moderate near-term funding requirements. The proposed duration would be supported by the K-Factor financial model and debt repayment schedules, with continued OUR oversight, periodic review and approval of qualifying projects.

6.4.2.2. K-Factor Investment Programme

For purposes of the present tariff review, it was developed as a forward-looking capital investment programme identifying the projects proposed to be financed through the K-Factor during the new tariff period.

The proposed investments were identified by parish, service and process. Detailed project information and calculations are provided in the Technical Model Annex. The investment programme considered is summarised below.

Table 64: K factor Investments

		Plan K					
		2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Type of Asset	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
Potable water pipes	JMD	-	825,602,192	-	-	767,126,168	-
Wastewater pipes	JMD	-	263,642,369	264,000,000	375,000,000	-	-
Wastewater treatment plants	JMD	-	3,365,901,160	2,286,200,000	-	-	-
Meters	JMD	-	922,008,050	922,430,570	922,632,570	922,531,570	929,929,820
Potable water pipes	JMD	-	5,885,117,381	6,281,361,000	5,246,312,000	3,306,646,000	3,113,365,000
Pump stations	JMD	-	1,718,249,989	635,369,681	1,321,329,086	1,311,709,987	1,495,090,804
Wastewater pipes	JMD	-	203,939,082	222,921,850	200,424,687	291,541,183	297,022,394
Water treatment plants	JMD	-	73,429,627	-	-	-	-
Total	**JMD**	**-**	**13,257,889,850**	**10,962,283,101**	**8,065,698,344**	**6,599,554,909**	**5,835,408,018**

Source: Tariff & Financial Model

6.4.2.3. Calculation of the K-Factor Financing Requirement

The annual K-Factor financing requirement is calculated prospectively based on the timing and value of qualifying investments expected to be undertaken during the tariff period, including the proposed renewable energy investments.

The K factor flow is calculated by applying the methodology determined in 2008 Rate Application for the new considered investments, i.e., considering the new K investment of each year, an annuity (10 years period and a rate equal to the WACC) is calculated. In addition, the calculation takes account of outstanding financing commitments associated with K-Factor projects approved or initiated in previous periods. Consequently, the prospective K-Factor cash-flow requirement reflects both:

- the financing requirement associated with new qualifying investments to be undertaken during the new tariff period; and
- the remaining financing commitments arising from previously approved K-Factor programmes.

Any existing balances or funding already available for eligible K-Factor projects are recognised in the calculation so as to avoid over-recovery from customers.

The resulting annual K-Factor financing requirement is presented below:

Table 65: K factor investment flow

			2026-2027	2027-2028	2028-2029	2029-2030	2030-2031	2031-2032	2032-2033
	Total	Unit	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Year 1	8,802,744,129	JMD	1,527,460,024	1,527,460,024	1,527,460,024	1,527,460,024	1,527,460,024	1,527,460,024	1,527,460,024
Year 2	8,062,083,101	JMD		1,398,939,861	1,398,939,861	1,398,939,861	1,398,939,861	1,398,939,861	1,398,939,861
Year 3	7,690,698,344	JMD			1,334,496,846	1,334,496,846	1,334,496,846	1,334,496,846	1,334,496,846
Year 4	5,832,428,740	JMD				1,012,048,245	1,012,048,245	1,012,048,245	1,012,048,245
Year 5	5,835,408,018	JMD					1,012,565,212	1,012,565,212	1,012,565,212
K FACTOR FLOW New Investments		JMD	**1,527,460,024**	**2,926,399,886**	**4,260,896,732**	**5,272,944,977**	**6,285,510,189**	**6,285,510,189**	**6,285,510,189**

			2033-2034	2034-2035	2035-2036	2036-2037	2037-2038	2038-2039	2039-2040
	Total	Unit	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14
Year 1	8,802,744,129	JMD	1,527,460,024	1,527,460,024	1,527,460,024				
Year 2	8,062,083,101	JMD	1,398,939,861	1,398,939,861	1,398,939,861	1,398,939,861			
Year 3	7,690,698,344	JMD	1,334,496,846	1,334,496,846	1,334,496,846	1,334,496,846	1,334,496,846		
Year 4	5,832,428,740	JMD	1,012,048,245	1,012,048,245	1,012,048,245	1,012,048,245	1,012,048,245	1,012,048,245	
Year 5	5,835,408,018	JMD	1,012,565,212	1,012,565,212	1,012,565,212	1,012,565,212	1,012,565,212	1,012,565,212	1,012,565,212
K FACTOR FLOW New Investments		JMD	**6,285,510,189**	**6,285,510,189**	**6,285,510,189**	**4,758,050,164**	**3,359,110,303**	**2,024,613,457**	**1,012,565,212**

		2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
	Unit	Year 1	Year 2	Year 3	Year 4	Year 5
K FACTOR FLOW New Investments	JMD	**1,527,460,024**	**2,926,399,886**	**4,260,896,732**	**5,272,944,977**	**6,285,510,189**
Initial balance	JMD	- 4,103,496,655				
Outflows of existing k factor projects	JMD	7,429,182,147	6,304,641,090	4,026,981,449	3,290,844,671	3,218,517,404
Repayment by NWC of previously utilised K-Factor (6.9 billon) in 10 years	JMD	- 690,349,345	- 690,349,345	- 690,349,345	- 690,349,345	- 690,349,345
TOTAL K FACTOR FLOW	JMD	**4,162,796,172**	**8,540,691,631**	**7,597,528,836**	**7,873,440,303**	**8,813,678,248**

Source: Tariff & Financial Model

The K factor applicable for the selected scenario is calculated as the present value of the K factor flow (for the tariff period) divided by the present value of the revenue requirement for the tariff period.

For the selected scenario, the K factor assumes a value of 11.82%.

The K-Factor percentage is calculated based on the Base Year Revenue Requirement. Therefore, should the OUR introduce any adjustments to the Base Year Revenue Requirement, the K-Factor percentage must be recalculated accordingly.

6.5. X Factor

The X-Factor represents the expected efficiency or productivity improvement to be passed through to customers during the tariff period. It is designed to provide NWC with incentives to improve operational efficiency while allowing customers to share in the resulting productivity gains.

Under an incentive-based regulatory framework, the X-Factor establishes an expected efficiency trajectory in advance. If NWC achieves efficiency gains greater than those incorporated into the X-Factor, the company may retain the resulting benefits during the tariff period. Conversely, if actual efficiency improvements fall below the level embedded in the tariff path, NWC bears the corresponding financial impact during the period, subject to the applicable regulatory adjustment mechanisms.

Although the initial Revenue Requirement under the methodology adopted for the present tariff review is determined using the FY2025/26 Base Year, the determination of the X-Factor necessarily requires a forward-looking assessment. This is because the X-Factor reflects efficiency improvements expected to materialise during the forthcoming tariff period rather than costs already observed in the Base Year.

Accordingly, the prospective analysis used to determine the X-Factor does not alter the Base Year approach used to establish the initial Cost of Service. Rather, it determines the efficiency adjustment to be incorporated into the tariff trajectory over the subsequent regulatory period.

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6.5.1. Approaches to Estimating the X-Factor

To estimate productivity improvements, the most widespread methods are:

i) **Total Factor Productivity (TFP);** and

ii) **Forward-looking financial modelling / Discounted Cash Flow (DCF) analysis.**

6.5.1.1. Total Factor Productivity Approach (TFP)

The Total Factor Productivity methodology estimates expected efficiency improvements by analysing historical changes in the relationship between the outputs produced by the utility and the inputs required to produce them.

An increase in TFP indicates that the utility is able to provide a given level of service using fewer inputs, or alternatively to increase output without a proportionate increase in inputs.

A principal advantage of TFP is that it provides an externally observable measure of historical productivity performance. However, historical productivity trends may not always provide an appropriate basis for forecasting future efficiency, particularly where the utility is undergoing significant structural or operational change.

This limitation is particularly relevant to NWC. Expected future performance is materially affected by substantial investment programmes, NRW reduction initiatives, changes in operating practices, rehabilitation of ageing infrastructure and the development of wastewater services. The benefits associated with these measures may emerge gradually and may therefore not be adequately captured by historical productivity trends.

For these reasons, historical TFP alone may not provide an adequate estimate of the efficiency improvements reasonably achievable by NWC during the forthcoming tariff period.

6.5.1.2. Forward-Looking / Discounted Cash Flow Approach

Under a forward-looking financial modelling approach, the X-Factor is determined using projections of NWC's operating costs, demand, revenues, investment programme and expected efficiency improvements during the tariff period.

The purpose of the analysis is to determine the efficiency adjustment that reconciles the tariff trajectory with the efficient Revenue Requirement expected over the regulatory period.

This approach is company-specific and allows the X-Factor to reflect the particular operational circumstances of NWC, including the expected timing and impact of efficiency initiatives and investments.

In particular, the methodology distinguishes between:

- a **Base OPEX projection**, representing the evolution of operating expenditure from the FY2025/26 Base Year before incorporating the additional efficiency improvements expected during the tariff period; and
- an **Efficient OPEX projection**, which incorporates the expected impact of NRW reduction measures and other identified operational efficiency initiatives.

The difference between these expenditure trajectories represents the prospective efficiency improvement that is translated into the X-Factor.

The X-Factor therefore does not determine the initial Base Year Revenue Requirement. Instead, it determines the rate at which the tariff trajectory is adjusted to reflect the efficiency improvements expected to materialise during the tariff period.

6.5.2. Determination of the X-Factor

The determination of the X-Factor is undertaken by comparing two forward-looking scenarios. First, a Base Scenario is developed, in which operating costs are projected without incorporating the prospective efficiency gains associated with NRW reduction and other efficiency measures. This scenario is used to determine the reference average tariff applicable at the beginning of the tariff period.

Conceptually:

$$\boldsymbol{AT_{no\ X\ factor} = \frac{PV_{RR\ Base}}{PV_{Volumes}}}$$

Where:

$AT_{no\ X\ factor}$: average tariff, without efficiency
PV_{RRBase}: the present value of the revenue required for the tariff period.
$PV_{Volumes}$: presents value of the volumes of the tariff period. This present value of the water and sewerage volumes is calculated as follows:

$$PV_{Volumes} = \sum_{t=1}^{5} \frac{Vol_t}{(1+WACC)^t}$$

*w*here:

$PV_{Volumes}$: presents value of water and wastewater volume sold in the tariff period.
Vol_t: water and wastewater volume of every year of the tariff period

A second scenario is then developed incorporating the expected reduction in operating expenditure resulting from the efficiency programme, called Efficient Scenario. The reference average tariff determined under the Base Scenario is maintained in Year 1 and is subsequently reduced annually by the X-Factor.

Accordingly, for Year 1:

$$T_1 = AT_{no\ X\ factor}$$

and for each subsequent year:

$$T_t = T_{t-1}\ (1 - X)$$

The resulting tariff trajectory is applied to projected billed volumes to determine annual tariff revenues under the Efficient Scenario.

The X-Factor is then calibrated through a Goal Seek process. The model varies X until the Internal Rate of Return generated by the projected regulatory cash flows under the Efficient Scenario is equal, or sufficiently close, to the regulatory WACC:

$$IRR(CF_X) = WACC$$

The projected regulatory cash flows take into account the initial Net Regulatory Asset Base, tariff revenues generated under the efficiency-adjusted tariff trajectory, projected operating expenditure, capital investment requirements and the remaining Net Regulatory Asset Base at the end of the tariff period.

The resulting X-Factor therefore represents the annual percentage reduction in the tariff trajectory that transfers the expected efficiency gains to customers while allowing NWC to recover its efficient operating costs, meet the financing requirements associated with the projected investment programme, and earn a return consistent with the regulatory WACC.

The X-Factor resulting from the forward-looking DCF calibration was determined at 3.78%.

6.5.3. X Factor in the W&WW Industry

Below are the recorded values of factor X used by different regulators, aiming to establish a comparison with the values obtained for the NWC.

The expected values of X factor, as obtained from the OFWAT paper, are presented below [17](2019):

Table 66: OFWAT – X factor values

Period	Average total factor productivity, not quality adjusted	Average total factor productivity, quality adjusted
1994-95	2.9%	3.5%
1996-00	2.2%	4.5%
2001-05	0.7%	2.0%
2006-10	1.4%	2.2%
2011-15	-0.5%	-0.2%
2016-17	-0.2%	0.0%
1994-17	**1.0%**	**2.1%**

[17] PR 19 Final Determinations: Overall stretch on costs, outcomes and cost of capital policy appendix (OFWAT - England)

The various periods analyzed show a maximum of 2.9% and periods with negative X factors (-0.5% and -0.2%) as well. Below are values for Australia[18], with an average of 2%:

Table 67: Australia – X factor values

firm	TE	TFPC	catch up	X factor
Canberra	0.755	1.1	2.3	3.4
Barwon	0.826	1.1	1.7	2.8
Brisbane	1.000	1.1	0.0	1.1
Central Gippsland	0.760	1.1	2.3	3.4
Central Highlands	0.627	1.1	3.5	4.6
City West M	1.000	1.1	0.0	1.1
Coliban	0.849	1.1	1.5	2.6
Gold Coast	0.999	1.1	0.0	1.1
Gosford	1.000	1.1	0.0	1.1
Goulburn Valley	1.000	1.1	0.0	1.1
Hunter	0.797	1.1	2.0	3.1
Melbourne Cons	1.000	1.1	0.0	1.1
Darwin	1.000	1.1	0.0	1.1
Adelaide	0.847	1.1	1.5	2.6
South East M.	0.976	1.1	0.2	1.3
Sydney	1.000	1.1	0.0	1.1
Perth	0.846	1.1	1.5	2.6
Yarra Valley M	0.989	1.1	0.1	1.2
mean	**0.904**	**1.1**	**0.9**	**2.0**

In Brazil, COPASA (water and sewerage company of Minas Gerais) had an X factor of 1.54% in 2021. CAESB (Brasilia water company) had a 1.82% X factor for the period 2020.

Generally, the values of the X factor range from 1% to 3%.

6.6. Verification Analysis

The tariff and financial model verification analysis enables the NWC to verify that the application of the adjusted tariffs allows the company to recover its costs based on the efficient scenario. In this sense, the internal rate of return (IRR) of the cash flow is calculated and must equate to the WACC to ensure the total recovery of the service costs in each year of the tariff period (see line check IRR vs WACC).

A summary of the verification cash flow is presented below:

[18] Performance Measurement in the Australian Water Supply Industry, Shannon Walding

[redacted]

Table 68: Cash Flow Verification

		With NRW investments					
		2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Concept	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
Volumes (W + WW)	m3	105,452,753	107,450,208	109,570,616	111,781,470	114,096,696	116,515,201
Average Tariff	JMD/m3	588	630	606	583	561	540
Revenue Received	**JMD**		**67,710,859,378**	**66,436,374,301**	**65,214,232,758**	**64,048,121,376**	**62,932,744,692**
Net Asset Base	**JMD**	**87,218,826,966**	106,363,937,898	124,734,643,754	137,733,687,288	148,784,518,047	**160,109,364,028**
Investments	**JMD**		**- 21,900,739,741**	**- 21,572,726,291**	**- 16,627,024,299**	**- 14,931,970,233**	**- 15,409,034,413**
OPEX	**JMD**		**- 49,743,205,659**	**- 49,085,470,530**	**- 48,354,940,944**	**- 47,706,598,355**	**- 47,110,808,220**
Cash Flow	**JMD**	**- 87,218,826,966**	**- 3,933,086,022**	**- 4,221,822,521**	**232,267,515**	**1,409,552,787**	**160,522,266,087**
IRR	**[%]**	**12%**					
WACC	**[%]**	**12%**					
		3.78%					

Source: Tariff & Financial Model

6.7. Price Adjustment Mechanism

According to Determination 28 of the Interim Tariff Review 2019-2021 Determination Notice: The OUR approved the NWC's revision of the weights in the price adjustment mechanism (PAM), which were set as follows

- ✓ Electricity: 20%
- ✓ Exchange Rate: 18%
- ✓ CPI (All divisions): 62%.

The OUR had slightly adjusted the weights of the PAM requested by NWC "*to reflect the distribution of the approved costs in the variables as at 2019 February*".

Table 69: OUR Approved PAM Weights, from National Water Commission Interim Tariff Review 2019-2021.

Component	NWC		OUR Approved Weight
	Current Weight	Proposed Weight	
CPI	51%	58%	62%
Electricity	25%	20%	20%
Foreign Exchange	24%	22%	18%
Total	**100%**	**100%**	**100%**

Source: OUR Determination Notice, 2019 December 09

The approved weights of PAM´s components, based on 2019 cost structure, have been in effect since March 2020 and have remained unvaried. Base rates for each weighted component is regularly updated, being the last annual update carried out in May, 2026.

Table 70: Current PAM structure, NWC May 2026 ANPAM Determination Notice.

Table 3.1 ANPAM Adjustment Rate Calculation

Index	Unit	Current Base Rates April 2025	New Base Rates April 2026	Weighting	Percentage Change	ANPAM
FX	J$/US$	158.11	157.06	0.18	-0.664%	-0.12%
CPI	-	141.8	147.4	0.62	3.949%	2.45%
Electricity	J$/kWh	50.59	56.42	0.20	11.524%	2.30%
ANPAM						4.63%

Source: Document Number 2026/WAS/010.DET.002

6.7.1. Variation in Basic Cost Components of Current PAM

When comparing the variations in PAM components' Base rates across time, significant differences are observed. Specifically, when considering the component values as of March 2020 and those of each update.

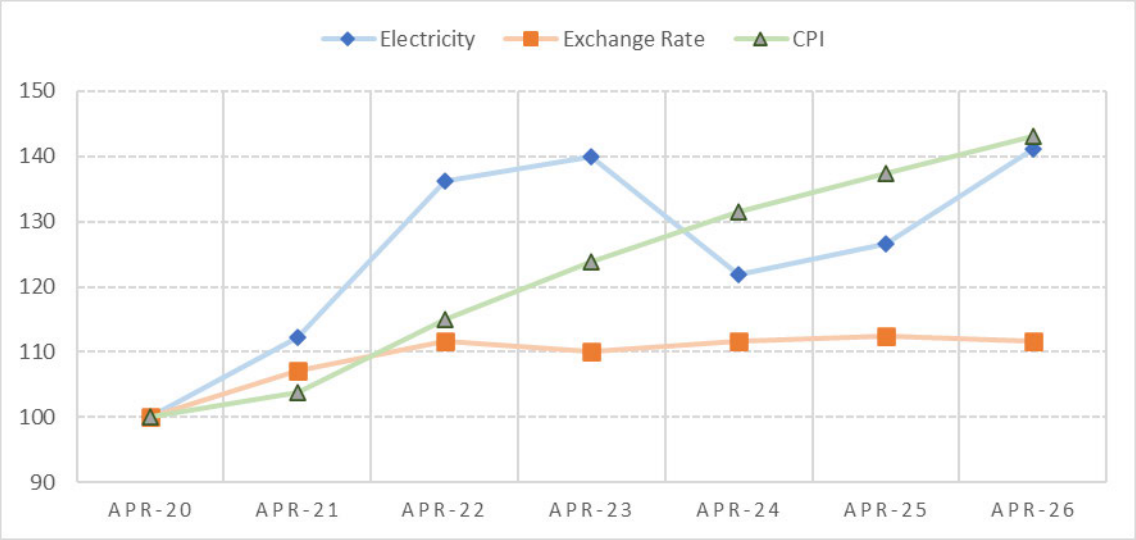
Table 71: PAM´s components base rates approved by OUR, 2020-2026.

	Apr-20	Apr-21	Apr-22	Apr-23	Apr-24	Apr-25	Apr-26	p-to-p Var.
Electricity	39.96	44.83	54.41	55.92	48.7	50.59	56.42	41.2%
FX Rate	140.73	150.66	157.13	154.89	157.21	158.11	157.06	11.6%
CPI	103.2[19]	107.1	118.6	127.8	135.8	141.8	147.7	43.1%

Source: OUR determination notices.

[19] The original figure of CPI for April-2020 (254,3) was reexpresed based in All Jamaica, All Division Consumer Price Monthly Index 2019 =100 (Rebased Series Monthly Indices 1976 - March 2020) from https://statinja.gov.jm/

Figure 9: PAM´s components base rates approved by OUR, 2020-2026.



Source: OUR determination notices.

The figures in table above are consistent with the cost analysis developed earlier for the test year. Considering the 2020-2026 period, the CPI index has grown steadily over the years, reaching a tip-to-tip increase of 43.1%. On the other hand, Electricity rate index showed erratic behaviour, dramatically increasing during the first 3-year period and lowering its increase after that. This behaviour was mainly due to international factors affecting the costs of energy and fuels across the globe and Jamaica in particular, which may continue to significantly influence its future evolution in the coming years. Despite this high variance within the period, its tip-to-tip increase reached 41.2%, with no significant difference from CPI index.

Regarding the FX index rate, it has evidenced a slow increase during 2020-2022, but a nearly constant figure after that. Under the inflation targeting monetary policy schema set in place since 2018, the FX rate plays a crucial and bidirectional role in Jamaica´s economy. Despite it is not formally determined by BoJ´s decree nor it has a target-value within the current monetary policy, the BoJ regularly intervenes in the market through auctions, to avoid sudden fluctuations without fixing its price. To this end, the schema evidenced success in the last years facing dynamic challenges of being impacted by several global factors and climate hazards.

It should be considered that, just like FX exchanges, Electricity has an implicit indirect effect on PAM since it is also partially reflected in CPI changes. However, these indirect changes are subject to:

- a delay in time of reflection, since CPI is retroactively estimated, and thus a month or two may be missed since the direct effect; and
- a differential adjustment, since nearly all components of CPI basket are influenced by electricity prices but they do at diverse degrees.

[redacted]

In this light, even though the PAM is designed to monthly adjust the customer bills for changes in the main inputs of NWC services (direct effect on cost structure), changes in the relative importance of an input (indirect effect on cost structure) may not be adequately reflected. The relative importance of an input could impact the cost structure, especially when considering mid- and long-term periods. The AnPAM does not capture this effect either, since weights remain unchanged despite some inputs becoming more relevant.

Therefore, if the PAM aims to reflect the change in the main components' cost structure, the relative weights of its components should be reviewed.

6.7.2. Proposed PAM Structure

To determine the proposed PAM structure, projected OPEX over the five-year tariff period was classified according to the cost driver most closely associated with each PAM index: Electricity, Exchange Rate (FX), and CPI.

Based on this classification, the resulting composition of OPEX subject to the PAM is 19.47% Electricity, 6.36% FX, and 74.17% CPI.

Accordingly, the proposed PAM composition is summarized below.

Table 72: Projected OPEX Classification by PAM Component

			2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Service	PAM	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
W	Electricity	JMD	9,240,348,522	9,291,504,983	9,345,199,643	9,399,849,398	9,455,833,669	9,512,982,371
W	FX	JMD	1,439,399,976	1,448,311,092	1,457,633,061	1,467,106,621	1,476,828,074	1,486,743,247
W	CPI	JMD	11,329,632,049	11,329,420,685	11,737,876,944	11,781,352,407	11,825,218,282	11,869,529,543
WW	Electricity	JMD	606,399,535	609,756,687	613,280,408	616,866,808	620,540,786	624,291,180
WW	FX	JMD	231,267,786	232,549,423	233,894,643	235,263,800	236,666,428	238,098,214
WW	CPI	JMD	3,866,609,144	3,813,179,700	3,828,001,708	3,843,002,300	3,858,224,421	3,873,665,755
W + WW	Electricity	JMD	282,421,183	283,984,724	285,625,843	287,296,153	289,007,252	290,753,939
W + WW	FX	JMD	1,536,688,810	1,579,241,858	1,623,316,762	1,668,990,104	1,716,371,513	1,765,626,215
W + WW	CPI	JMD	22,072,168,117	23,071,201,039	23,535,198,901	24,151,870,752	24,742,534,964	25,291,225,305
TOTAL		**JMD**	**63,408,172,799**	**64,462,387,867**	**68,115,173,996**	**71,449,010,068**	**73,969,285,639**	**76,177,080,680**

PAM	Unit	% related to total OPEX
Electricity	%	**19.34%**
FX	%	**6.32%**
CPI	%	**74.34%**

Source: Tariff Structure Model

7. Tariff Structure

This section focuses on NWC's water and sewage tariff structure to propose a revised tariff design guided by the three objectives: efficiency, financing and equity. The proposed structure aims to:

i) Generate sufficient revenue to meet the overall financial requirements of the company.
ii) Be cost-based, affordable and promote economic efficiency in both, production and consumption.
iii) Strive for economic efficiency in tariff design.
iv) Ensure sustainability of NWC's operations.

In this sense, an international survey of developed countries' tariff structure is presented as a reference of the best practices used in tariff design strategies. This is followed by a detailed analysis of NWC's current tariff structure, based on NWC's historical billing data. Identified issues, gaps, and inconsistencies are acknowledged and discussed.

Finally, a proposed tariff structure is presented with policy alternatives to protect vulnerable groups, such as changing the current number of consumption blocks for the residential and commercial customers and assessing the social impact of the new tariff on the most vulnerable customer segments.

7.1. International Tariff Structures

To provide a comparative reference for the assessment of NWC's current tariff structure, this section examines the residential tariffs of selected water and wastewater utilities in the Caribbean and other regions. The benchmark considers both the level of the bills faced by customers and the main design features that determine those bills.

7.1.1. Benchmark Scope and Methodology

The purpose of the benchmark is to position NWC's residential tariff relative to regional peers and to a broader external reference group. The Caribbean subgroup comprises besides the NWC in Jamaica, six other state-owned companies: Belize Water Services (BWS) in Belize, Dominica Water and Sewerage Company (DOWASCO) in Dominica, National Water and Sewerage Authority (NAWASA) in Grenada, and the Water and Sewerage Company (WASCO) in Saint Lucia and Water and Sewerage Corporation (WSC) in The Bahamas.

The external reference group comprises four additional public enterprises: the Metropolitan Public Water and Sanitation Company (EPMAPS) in Ecuador and three utilities in the Federated States of Micronesia: Pohnpei Utilities Corporation (PUC) in Pohnpei, Chuuk Public Utilities Corporation (CPUC) in Chuuk and Yap State Public Service Corporation (YSPSC) in Yap. Together, these utilities form a ten-operator benchmark in which NWC can be assessed both regionally and across the full sample.

The comparison focuses on residential customers and distinguishes two dimensions:

- **Service:** water only, or water and wastewater.
- **Connection status:** an existing connection, for which only recurring tariff components are considered, or a new connection, for which the one-off connection and infrastructure charges captured in the benchmark are also included.

To facilitate comparison, the tariff rates used for each utility were expressed in United States dollars (USD), while consumption levels were expressed in cubic meters per month (m^3/month).

Monthly residential bills were calculated for consumption levels from 0 to 95 m^3/month, in increments of 5 m^3. A consumption level of 15 m^3/month was selected as the principal reference scenario because it is consistent with the average monthly residential consumption observed in NWC's billing database: approximately 14 m^3 for metered residential customers and 15 m^3 for customers with estimated consumption.

The benchmark is descriptive. It compares the published charges incorporated into the analysis but does not assess whether those charges reflect efficient costs, differences in service quality or continuity, or household affordability.

7.1.2. Comparison of Residential Tariff Design

Before comparing bill levels, it is necessary to consider how each utility structures its residential tariff. Similar final bills may result from different combinations of fixed charges, minimum bills, consumption blocks and wastewater-related charges. The next table summarizes the tariff architecture reflected in the benchmark calculations.

Table 73: Residential tariff design by operator

Utility		Water tariff			Wasterwater tariff	Main feature
	Region - Country	Fixed/Service charge	Minimum bill	Variable rate		
National Water Commission (NWC)	**Caribbean – Jamaica**	**Yes**	**No**	**Four-tier block tariff**	**Separate four-tier block rates**	**Service charge depends on meter size**
Belize Water Services (BWS)	Caribbean – Belize	No	Yes	Nine-tier block tariff	Combined minimum and block schedule	Connection and infrastructure charges captured
Dominica Water and Sewerage Company (DOWASCO)	Caribbean – Dominica	No	Yes	Linear above minimum	Fixed charge	Separate water and wastewater connection charges captured
National Water and Sewerage Authority (NAWASA)	Caribbean – Grenada	Yes	No	Three-tier block tariff	33.3% of water volumetric charge	Connection charge depends on meter size
Water and Sewerage Company (WASCO)	Caribbean - Saint Lucia	No	Yes	Two-tier block tariff	Separate minimum and tiered charges	-

Utility		Water tariff			Wasterwater tariff	Main feature
	Region - Country	Fixed/Service charge	Minimum bill	Variable rate		
Public Utilities Corporation (PUC)	Pacific - Micronesia (Pohnpei)	No	Yes	Linear above minimum	-	-
Chuuk Public Utilities Corporation (CPUC)	Pacific - Micronesia (Chuuk)	Yes	Yes	Four-tier block tariff	15% surcharge on water charge	Connection charge captured
Yap State Public Service Corporation (YSPSC)	Pacific - Micronesia (Yap)	No	Yes	Three-tier block tariff	80% surcharge on water charge	Connection and infrastructure charges captured
Metropolitan Public Water and Sanitation Company (EPMAPS)	Latin America – Ecuador	Yes	No	Three-tier block tariff	38.6% surcharge on water volumetric charge	New connection depends on size meter
Water and Sewerage Corporation (WSC)	Caribbean – Bahamas	No	Yes	Three-tier block tariff	Fixture-unit-based wastewater charge	Both new connection cost and minimum charge depend on size meter

Source: Elaborated by Consultant based on the Tariff Benchmark workbook and the tariff sources listed therein.

NWC's broad tariff architecture—a meter-related service charge combined with block-based volumetric rates—is not unusual within the benchmark. Similar high-level structures are applied by other utilities, although the number and limits of the consumption blocks and the treatment of wastewater differ materially.

Fixed and minimum charges have their greatest effect at low or zero consumption, while the level and progression of the volumetric rates become increasingly important as consumption rises. Consequently, the tariff architecture alone does not determine whether an operator produces a high or low bill; the applicable charge levels and block thresholds must also be considered.

7.1.3. Residential Bill Comparison

The principal recurring-bill comparison considers an existing residential connection consuming 15 m^3/month and receiving both water and wastewater services. This scenario isolates the ongoing charges paid for service from the one-off costs associated with obtaining a new connection.

Figure 10: Monthly residential bill at 15 m³ — existing connection, water and wastewater



Source: Tariff Benchmark dashboard

Given that this charge depends on the connection diameter, the 5/8 inch – 15 mm meter size was selected due to its high representativity in the residential client category.

Table 74: NWC position at 15 m³ by service scenario — existing connection

Service scenario	NWC bill (USD/month)	Overall rank (from lowest to highest)	Caribbean rank	vs. other nine benchmark utilities	vs. Caribbean peers
Water only	$24.33	8 of 10	4 of 6	38.3% above	4.5% above
Water + wastewater	$43.09	9 of 10	5 of 6	73.9% above	30.3% above

Source: Consultant's calculations.

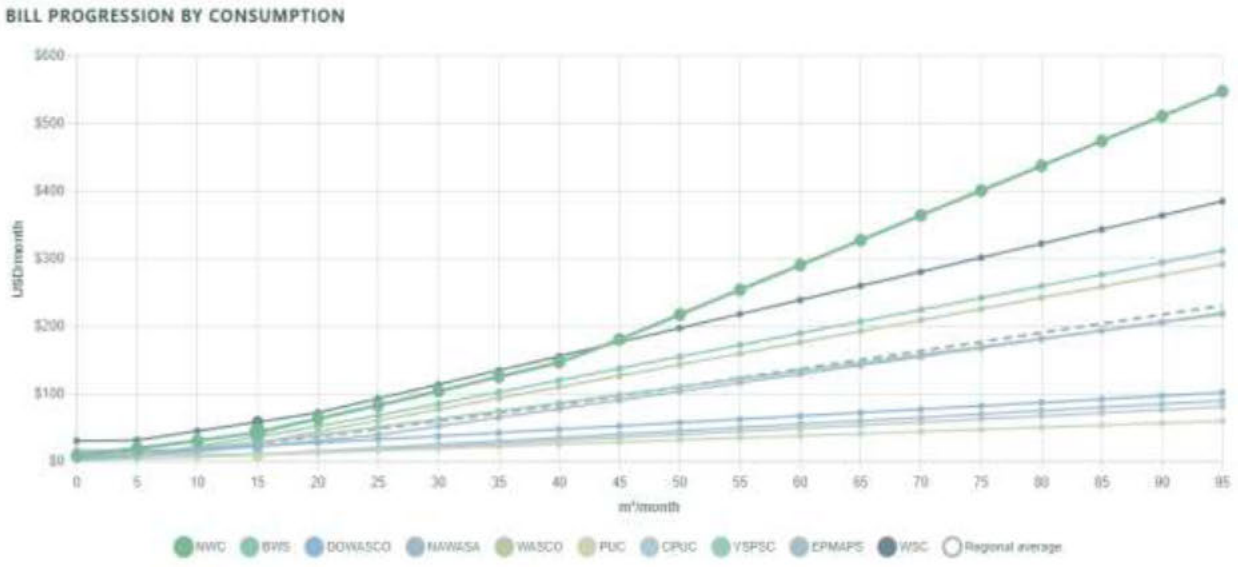
At 15 m³/month, NWC's combined water and wastewater bill is USD 43.09. This places NWC ninth among the ten utilities and fifth among the six Caribbean utilities. The bill is approximately 73.9% above the average of the nine other benchmark utilities and 30.3% above the average of the five other Caribbean utilities.

The result is less pronounced for water service alone. At the same consumption level, NWC's water-only bill is USD 24.33, placing it eighth overall and fourth within the Caribbean subgroup. It is only 4.5% above the average of the five Caribbean peers. This indicates that NWC's comparatively high position is more pronounced when the combined water and wastewater bill is considered.

7.1.4. Sensitivity to Consumption Level

Because the utilities apply different block thresholds and rate progressions, their relative positions change as consumption increases. Figure 12, presents the bill curves for an existing residential connection receiving water and wastewater services across the complete modeled range.

Figure 11: Monthly residential bill progression by consumption — existing connection, water and wastewater



Source: Tariff Benchmark dashboard.

Table 75: NWC bill and position across selected consumption levels — existing connection, water and wastewater

Consumption (m^3/month)	NWC bill (USD/month)	Overall rank	Caribbean rank	vs. other nine utilities	vs. five Caribbean peers
5	$19.18	9 of 10	5 of 6	57.9% above	19.1% above
15	$43.09	9 of 10	5 of 6	73.9% above	30.3% above
30	$103.38	9 of 10	5 of 6	89.4% above	42.0% above
45	**$180.09**	**10 of 10**	**6 of 6**	**107.1% above**	**54.8% above**
75	$400.34	10 of 10	6 of 6	163.9% above	96.8% above
95	**$547.17**	**10 of 10**	**6 of 6**	**180.7% above**	**109.2% above**

Source: Consultant's calculations.

At low and moderate consumption levels, NWC remains below WSC. At 45 m^3/month—the first modeled point after the crossover—it becomes the highest-bill utility in both the Caribbean subgroup and the full benchmark. By 95 m^3/month, NWC's bill reaches USD 547.17, approximately 180.7% above the average of the nine other utilities and 109.2% above the average of the five Caribbean peers. The widening differential reflects NWC's service charge and its higher-block water and wastewater rates, rather than the use of tiering alone.

7.1.5. Connection and Infrastructure Charges

The new-connection scenario is presented separately from the recurring-bill comparison because connection and infrastructure charges are one-off amounts. They are added in full to the recurring bill for the selected consumption level and are not annualized or converted into a monthly equivalent.

Table 76: Illustrative initial customer charge at 15 m³ — water and wastewater

Utility	Region – Country	Recurring bill (USD/month)	One-off charges captured (USD)	Illustrative initial charge (USD)	Interpretation
PUC	Pacific - Micronesia (Pohnpei)	$9.39	Not captured	$9.39	No separate one-off amount included in benchmark
WASCO	Caribbean - Saint Lucia	$27.20	Not captured	$27.20	No separate one-off amount included in benchmark
NWC	**Caribbean – Jamaica**	**$43.09**	**Not captured**	**$43.09**	**No separate one-off amount included in benchmark**
NAWASA	Caribbean – Grenada	$21.69	$29.63	$51.32	Connection and/or infrastructure charge included
CPUC	Pacific - Micronesia (Chuuk)	$10.05	$51.00	$61.05	Connection and/or infrastructure charge included
YSPSC	Pacific - Micronesia (Yap)	$28.53	$45.00	$73.53	Connection and/or infrastructure charge included
DOWASCO	Caribbean – Dominica	$22.37	$481.48	$503.85	Connection and/or infrastructure charge included
WSC	Caribbean - Bahamas	$58.06	$612.50	$670.56	Connection and/or infrastructure charge included
EPMAPS	Latin America – Ecuador	$9.71	$747.34	$757.05	Connection and/or infrastructure charge included
BWS	Caribbean - Belize	$36.08	$1,015.00	$1,051.08	Connection and/or infrastructure charge included

Source: Consultant's calculations.

One-off charges materially alter the ranking, exceeding USD 400 for DOWASCO, WSC, EPMAPS and BWS. No separate amount is captured for NWC, WASCO or PUC; NWC therefore appears third in the new-connection ranking at 15 m³/month. This should not be interpreted as evidence of a low or zero NWC connection cost, only that no separate charge was included. The input should be confirmed before drawing conclusions on access costs.

7.1.6. Main Findings and Limitations

The benchmark supports the following main findings:

- **Tariff structure**: NWC's general tariff architecture is broadly consistent with the approaches observed among the comparator utilities. Fixed or minimum charges combined with

volumetric rates are common across the sample. NWC's comparatively high bills therefore appear to be associated primarily with the level and progression of its rates, particularly in the higher consumption blocks, rather than with the use of a block tariff itself.

- **Typical residential consumption**: At 15 m³/month, NWC's water-only bill is relatively close to the Caribbean peer average, standing 4.5% above it. However, its combined water and wastewater bill is 30.3% above the Caribbean peer average and places NWC fifth among the six Caribbean utilities. This indicates that NWC's relative position becomes less favorable when wastewater charges are included.
- **Sensitivity to consumption**: NWC's relative cost differential increases as consumption rises. At 45 m³/month, it becomes the highest-bill utility in both the Caribbean subgroup and the full benchmark, and the difference continues to widen at higher consumption levels. This result provides relevant context for the subsequent review of NWC's consumption blocks and tariff progression.
- **Connection and infrastructure charges**: One-off access charges vary substantially among the utilities and should be analyzed separately from monthly bills. Since no separate NWC connection charge was captured in the benchmark, no firm conclusion should be drawn regarding NWC's relative initial access cost.

7.1.7. NWC Current Tariff Structure

Next tables present the current tariff structure including the service charge and water and sewer variable rates, as of April 2026 (applicable in May 2026).

Table 77: Water and Sewer Current Rates – Service Charge

Service Charge	Charge (JMD $)
5/8 inch – 15mm	$1,272.90
¾ inch – 20mm	$2,784.35
1 inch – 25mm	$3,636.02
1 ¼ inch – 30mm	$6,846.23
1 ½ inch – 40mm	$6,846.23
2 inch – 50mm	$9,696.07
3 inch -75 mm	$17,606.87
4 inch – 100 mm	$28,449.43
6 inch – 150 mm	$43,337.46

Source: NWC's Master Rate Sheet

Table 78: Water and Sewer Current Rates – Volumetric Rate

Volumetric Rate	Charge (JMD $/ volume unit)	
Consumer Category	Water	Sewerage
Domestic Customers		

Volumetric Rate	Charge (JMD $/ volume unit)	
Imperial Metered		
For up to 3,000 gallons at a rate of	$737.12	$851.38
For the next 3,000 gallons at a rate of	$1,311.88	$1,515.23
For the next 3,000 gallons at a rate of	$1,429.86	$1,651.50
Over 9,000 gallons at a rate of	$2,439.07	$2,817.12
Metric Metered		
For up to 14,000 liters at a rate of	$162.14	$187.26
For the next 13,000 liters at a rate of	$288.56	$333.30
For the next 14,000 liters at a rate of	$314.53	$363.28
Over 41,000 liters at a rate of	$536.54	$619.68
Commercial and Industrial Customers		
Imperial Metered		
For up to 2,000,000	$2,816.75	$3,253.35
Over 2,000,000 gallons	$1,641.83	$1,896.34
Metric Metered		
For up to 9,100,000	$619.60	$715.64
Over 9,100,000 liters	$361.15	$417.14
Standby Charge (Imperial)		
Annual Contracted Capacity Charge	$1,162.87	
Volumetric	$1,233.56	
Penalty (Use above contracted capacity)	$1,233.56	
Standby Charge (Metric)		
Annual Contracted Capacity Charge	$255.81	
Volumetric	$271.33	
Penalty (Use above contracted capacity)	$271.33	
Condominiums		
Imperial Metered	$1,397.27	$1,613.87
Metric Metered	$307.35	$355.02
Primary Schools		
Imperial Metered	$1,116.26	$1,289.27
Metric Metered	$245.57	$283.58

Source: NWC's Master Rate Sheet

The NWC's current tariff structure is a two-part tariff: a fixed charge called service charge and a variable charge, the volumetric rate. The service charge is a monthly fixed charge applied to the customer's bills according to the diameter of the customer's pipe connection, regardless of the

customer's category (Table 77). The variable charge is billed based on the volume consumed, the metric system and the customer's category (Table 78). Customers are categorized as residential, commercial, condominiums or schools. Each of these categories is aligned to a metering system: Imperial Gallons or Metric Metered. Within each category, there are different consumption blocks which allow the company to assign different variable charges, forming a cascading tariff structure. The condominium and school categories have only one consumption block each, while the commercial category has two, and the domestic/residential category has four.

The Standby Charge is a charge for large commercial customers that remain connected to the networks only for backup supply if their own water source fails or is interrupted. The capacity charge covers the costs of infrastructure to meet the needs of standby customers, the annual contracted capacity. The volumetric charge is a charge for water used. Additionally, a penalty charge is imposed for consumed volumes above the pre-agreed amount. Currently, there are no commercial customers utilizing this service.

7.2. Billing Base Analysis

The tariff-structure analysis draws on detailed customer-level billing information historically provided by NWC, which was used to characterize customer consumption profiles, category distributions and consumption patterns. For the present tariff proposal, these distributional parameters are combined with the updated aggregate customer and demand levels adopted in the Technical Model. For the base year, the Technical Model relies on actual customer and consumption data collected at parish level, thereby anchoring the tariff analysis to the most recent available information on the current scale of NWC's operations.

Unless otherwise stated, references in this section to customer and consumption distributions relate to the detailed billing dataset used for the distributional analysis. Current aggregate customer and consumption levels used in the tariff calculations are those incorporated into the Technical Model for the base year.

The following table presents the subcategories used to classify customers.

Table 79: Customers' subcategories

Subcategories	Description
RS	Residential
CM	Commercial
GT	Government
CN	Condominium
SH	School
EM	Employees
AL[20]	New accounts pending category assignment

[20] The AL subcategory corresponds to a customer that has not a defined category assigned. This is a temporary code assigned to accounts for category verification.

Source: NWC's billing base

7.2.1. Analysis of the Service Charge

The following table shows the summary of the share of the meters used according to the user type as per the breakdown presented in the following table:

Table 80: Number of bills according to type of meter installed and user category

Type of meter (inch and mm)		RS	CM	GT	CN	SH
.5_ and 5/8_	15	99.07%	91.1%	83.9%	26.2%	50.0%
.75_ and 3/4_	20	0.50%	0.1%	0.2%	0.0%	0.3%
1_	25	0.18%	4.6%	6.9%	11.6%	27.7%
1 1/4_	30	0.08%	0.0%	0.0%	0.0%	0.0%
1.5 and 1 1/2_	40	0.06%	0.6%	1.0%	2.2%	2.3%
2	50	0.05%	2.0%	4.7%	31.8%	16.6%
3	75	0.03%	0.4%	0.9%	4.3%	0.8%
4	100	0.03%	1.1%	2.1%	24.1%	2.2%
6	150	0.00%	0.1%	0.3%	0.0%	0.1%

Source: NWC's billing base

The following must be noted:

- The bill amounts of certain meters were added together because they had similar monetary value to the Service Charge. For example, 30mm and 40mm have a similar price in the tariff table (See Table 77).
- The values of the employees or staff "EM" subcategory were added to those of the residential "RS" subcategory.
- The "AL" category was excluded from this analysis.

Finally, the following can be concluded:

- 99% of residential customers have 5/8 inch or 15mm connections.
- 91.1% of commercial customers use 5/8 inch or 15mm meters, 4.6% use 1inch or 25mm connections, and 2% use 2inch or 50mm connections.
- 84% of government customers use 5/8 or 15mm connections, 7% use 1inch or 25mm and 4.7% use 2inch or 50mm.
- The condominium category has more distributed connections among the existing types of meters, the most relevant is 2mm or 50 inches.
- 50% of the school category connections are 5/8 or 15mm.

7.2.2. Analysis of the Volumetric Rate Charge

One remarkable characteristic of the volumetric rate is the coexistence of two metering systems: the metric and imperial systems. The metric system is the predominant system, representing about 82% of customers and 85% of the volume. Conversely, the imperial system accounts for a smaller portion,

encompassing approximately 18% of customers and 15% of the volume (Table 81). The coexistence of both metering systems generates duplicity in tariffs applications and makes the billing methodology more complex. However, the program developed by the NWC regarding the All-Island Metering Program is removing the duplicity of the metering system.

Table 81: Market distribution of the metering systems

UOMS	Customers	Volume
MET	82%	85%
IMP	18%	15%

Source: NWC's billing base

In the preceding sections, the analysis and results of the billing base will be presented using the metric system; volumes originally in imperial gallons have been converted using conversion factor ***4.54609 L/IG.*** Adopting a unified metering system simplifies data processing and leads to a more efficient analysis of the results.

The following tables distribute the number of customers and volume (in m^3)[21] by subcategory and their share.

Table 82: Market distribution by subcategory – water service

	Quantities	
Subcategory	Customers	Volume (m3)
RS	347,126	56,059,892
CM	22,935	19,440,055
GT	2,961	5,493,106
CN	244	1,204,049
SH	821	2,833,124
EM	1,130	229,507
AL	2	548

	Percentage	
Subcategory	Customers	Volume (m3)
RS	93%	66%
CM	6%	23%
GT	1%	6%
CN	0%	1%
SH	0%	3%
EM	0%	0%
AL	0%	0%

Source: NWC's billing base

The billing base analysis indicates that 93% of customers (66% of volume) belong to the residential subcategory. The other significant sub-category is commercial with 6% of customers and 23% of volume.

Using these percentages and the technical model demand calculations, the following quantities for both customers and volume are estimated:

[21] Volumes recorded in imperial gallons have been converted into the metric system by the conversion factor 4.54609 liters per Imperial gallon (L/IG).

[redacted]

Table 83: Number of Customers and Volume Consumed

Subcategory	Customers	Volume (m3)
RS	370,106	55,777,840
CM	25,900	16,828,967
GT	2,918	5,693,257
CN	263	1,045,694
SH	834	2,674,929
EM	1,166	264,660

Source: Consultant's calculation based on NWC's data and technical model

Next table shows the proposed water rate schedule.

Table 84: Water rates simplified schedule

Water Rates Proposed	Description
RSI	Residential Water Imperial
RSM	Residential Water Metric
CMI	Commercial Water Imperial
CMM	Commercial Water Metric
GTI	Government Water Imperial
GTM	Government Water Metric
EMI	Staff Water Imperial
EMM	Staff Water Metric
CNI	Condominium Water Imperial
CNM	Condominium Water Metric
SHI	School & Charity Water Imperial
SHM	School & Charity Water Metric

Source: Elaborated by Consultant based on NWC's information.

The following tables illustrate the number and percentage of customers and volume (in m^3) by the proposed water rate groups. Upon assessment of the distribution, it is observed that 75% of the customers (accounting for 56% of the volume) belong to the metric system of the residential category (RSM) and almost all commercial customers are under the metric system (CMM).

Table 85: Customers and volume (in m3) by simplified rate schedule

Rate	Clients	% Clients	Volume [m3]	% Volume
RSI	66,519	17.7%	12,129,064	14.2%
RSM	280,492	74.8%	43,925,930	51.5%
CMI	1,166	0.3%	367,798	0.4%
CMM	22,342	6.0%	18,727,123	22.0%
CNM	242	0.1%	1,497,737	1.8%
CNI	22	0.0%	89,708	0.1%
GTI	600	0.2%	556,801	0.7%
GTM	1,863	0.5%	4,889,182	5.7%
SHI	36	0.0%	29,722	0.0%
SHM	784	0.2%	2,803,808	3.3%
EMI	97	0.0%	21,748	0.0%
EMM	1,047	0.3%	219,676	0.3%
TOTAL	375,210	100%	85,258,297	100%

Source: Consultant's calculation based on NWC's data

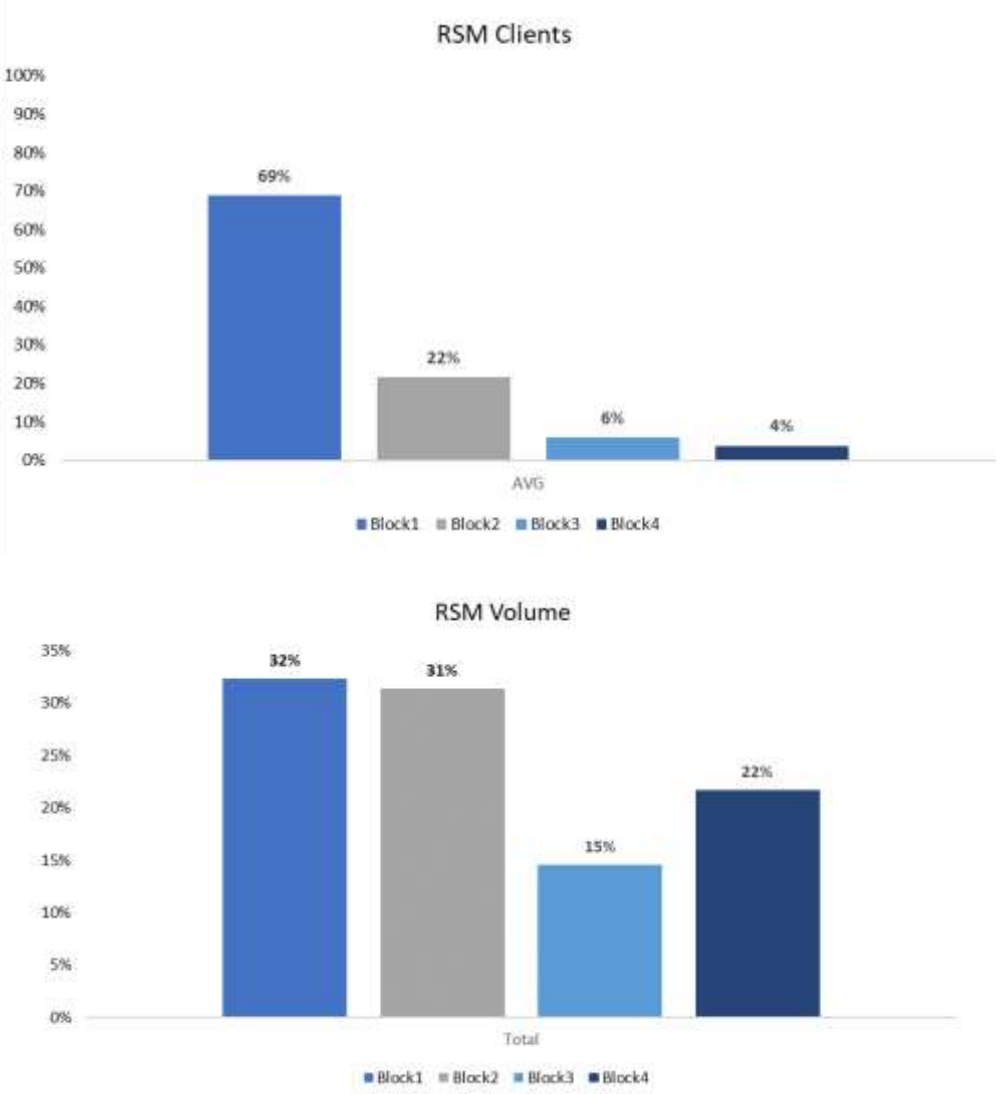
7.2.2.1. Residential

Residential customers are categorized according to the metering system applied, namely metric (RSM) and imperial (RSI).

The detailed billing information historically provided by NWC was used to characterize the distribution of residential customers and consumption across the existing tariff blocks. For the purposes of the present tariff proposal, this information is used as a distributional reference, while the current aggregate number of customers and consumption volumes are derived from the Technical Model, which uses actual parish-level customer and consumption information for the base year.

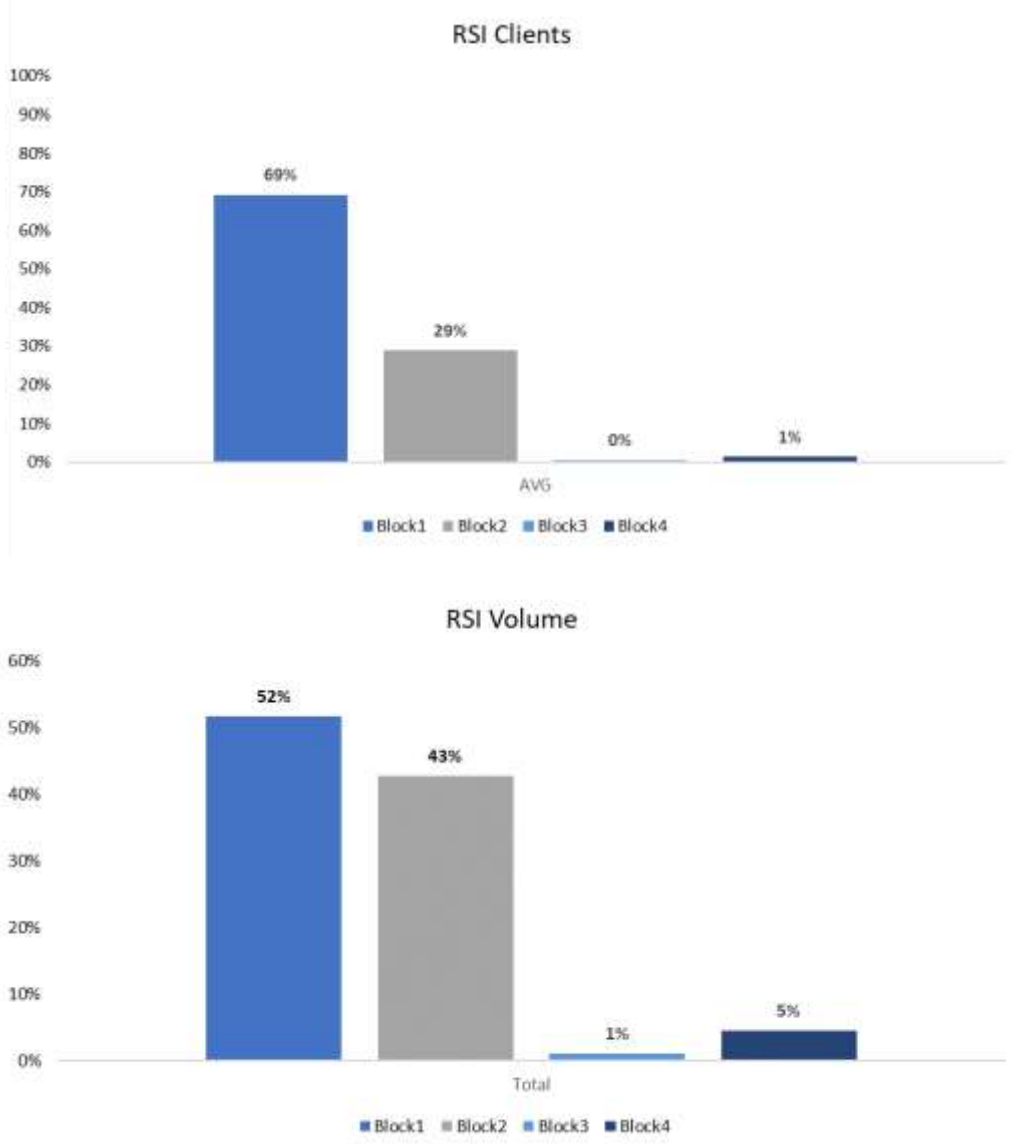
Accordingly, the billing analysis presented below is intended to describe the relative residential consumption profile and the concentration of customers and volumes across consumption ranges, rather than to establish the current absolute number of customers or aggregate residential demand.

Figure 12: Residential water metric (RSM) distribution



Source: Elaborated by Consultant based on NWC's information.

Figure 13: Residential water imperial (RSI) distribution



Source: Elaborated by Consultant based on NWC's information.

The distributional analysis shows that, under both the metric and imperial systems, approximately 69% of residential customers are located within the first consumption block. Under the metric system, most of the remaining customers are concentrated in block 2, while only a relatively small proportion falls within blocks 3 and 4.

In terms of consumption volumes, the distribution is less concentrated than the customer distribution. For RSM customers, the first block accounts for approximately 32% of total residential consumption, while consumption is more evenly distributed across the higher blocks. For RSI customers, approximately 52% of consumption is located within the first block and 43% within the second block.

These results indicate that the majority of residential customers are concentrated within the lower consumption ranges, while higher-consumption customers, although fewer in number, account for a

proportionally larger share of total demand. This consumption profile is used as an input for assessing the adequacy of the existing block structure and the distributional impact of alternative tariff designs.

Table 97 compares the average consumption within each block with the corresponding central value of the block. For both metering systems, average consumption is generally close to the central value, indicating a relatively balanced distribution of customers within each consumption range.

A more detailed assessment of consumption within the first residential block also shows a significant concentration of customers at relatively low levels of monthly consumption. This information provides an important reference for the definition of the lower tariff blocks and for assessing the potential social impact of changes in tariff progression.

The following table compares the average consumption for each block and system and block central value:

Table 86: Comparison of blocks limits of the residential rates

RSM	Limit Min [m3]	Limit Max [m3]	Block Central Value [m3]	Average consumption [m3/customer]
Block1	0	14	7	6.3
Block2	14	27	21	19.5
Block3	27	41	34	33.1
Block4	41			77.2
Total				**13.4**

RSI	Limit Min [IG 000]	Limit Max [IG 000]	Block Central Value [IG 000]	Average consumption [IG 000/ customer]
Block1	0	3	1.5	2.5
Block2	3	6	4.5	5.0
Block3	6	9	7.5	7.7
Block4	9			13.8
Total				**3.4**

Source: Elaborated by Consultant based on NWC's information.

For both rates and blocks the average consumptions are very close to block central value indicating that customers within each block are evenly distributed.

A thorough analysis of the first block consumption patterns was developed. The following graphics describe customers' average monthly for both systems up to 13m^3.

Figure 14: Average monthly consumption patterns for the actual first residential consumption block





Source: Elaborated by Consultant based on NWC's information.

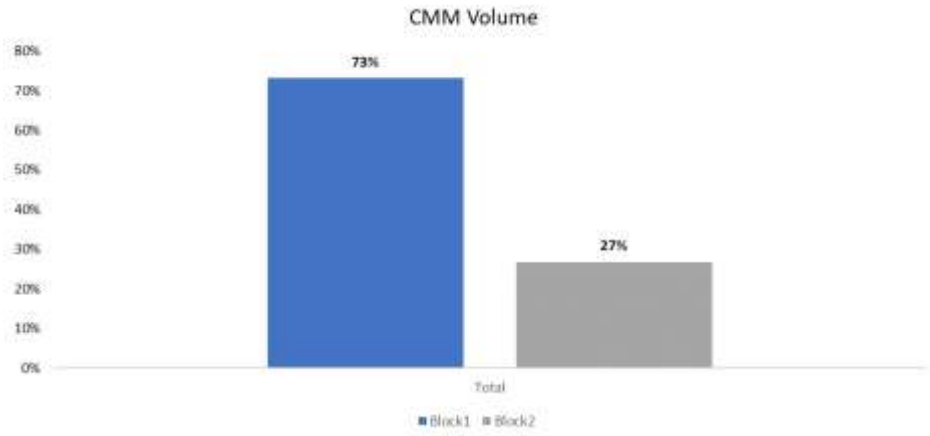
Around 70% of RSM and RSI customers consume within block 1. Also, from Figure 6, almost 50% of RSM customers have a monthly consumption of less than 6m3 (blue chart) while most of RSI customers' consumption ranges from 5m3 to 9m3 (orange chart).

7.2.2.2. Commercial

Commercial customers are also classified according to the metering system applied, namely metric (CMM) and imperial (CMI). The detailed billing information historically provided by NWC was used to characterize the distribution of commercial consumption across the existing tariff blocks.

As in the residential analysis, the historical billing information is used to identify the relative consumption profile and the degree of concentration of demand, while the current aggregate commercial customer numbers and consumption volumes are obtained from the Technical Model using the base-year information provided by NWC at parish level.

Figure 15: Commercial volume distribution (CMM)



Source: Elaborated by Consultant based on NWC's information.

The distributional analysis indicates that the vast majority of commercial customers are served under the metric system and that commercial consumption presents a highly asymmetric profile, with most customers displaying relatively moderate consumption while a very small group of large users accounts for a significant proportion of total demand.

Under the existing CMM tariff structure, almost all customers in the reference billing dataset fall within the first consumption block. In that dataset, only 29 customers were classified within the second block; however, these customers accounted for approximately 27% of total CMM consumption. This illustrates the significant concentration of commercial demand among a limited number of high-consumption users.

The existing threshold between the two CMM blocks is 9,100 m³, whereas average consumption within the first block is approximately 52.1 m³/customer. Customers falling within the second block display a substantially higher average consumption, at approximately 17,000 m³/customer.

Table 87: CMM Average Consumption

CMM	Average consumption (m^3/customer)
Block1	52.1
Block2	17,000

Source: Consultant's calculation based on NWC's information.

This substantial difference in consumption profiles suggests that the existing block boundary does not provide sufficient differentiation between typical commercial customers and a limited number of very large users. The analysis therefore supports reconsidering the commercial block thresholds in order to provide clearer price signals and a tariff structure that better reflects the heterogeneity of commercial consumption.

Given the limited number and exceptionally high consumption of customers located in the upper range, individual assessment of these large users may also be appropriate when implementing the revised tariff structure.

7.2.2.3. Government

An assessment of NWC billing base revealed 2,961 customers in the government subcategory, representing 6% of the total volume consumed (Table 82). Their average monthly consumption stands at 187m^3/customer

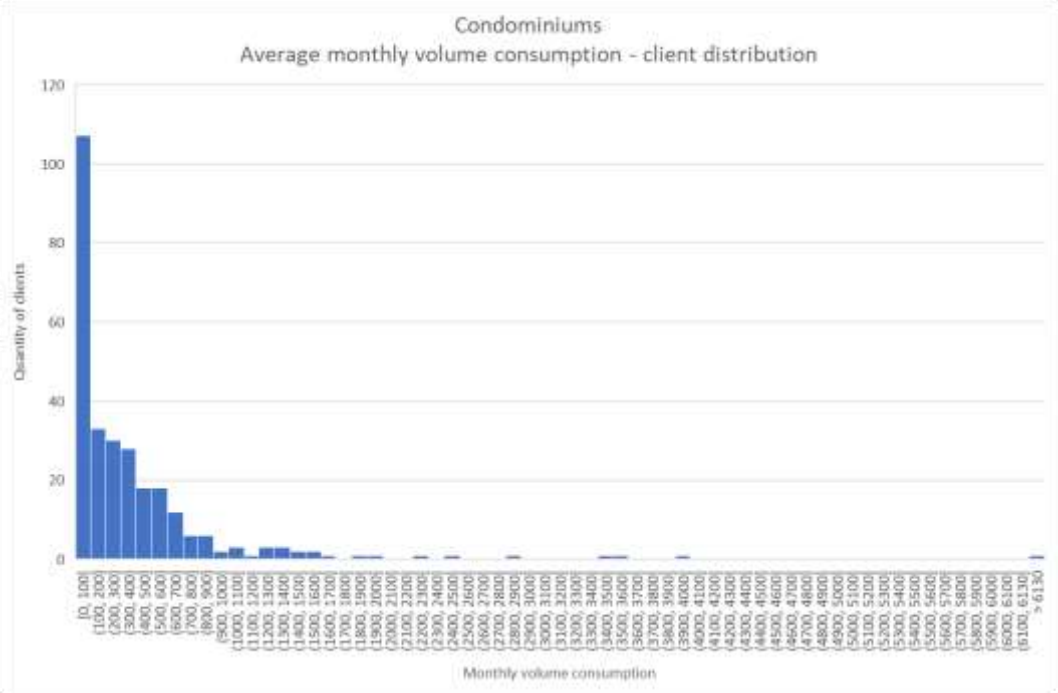
The consultant suggestion is that these customers should be treated separately based on the nature of their consumption, and a dedicated government tariff category be created in order to improve the price signal to customers and apply fairer tariffs.

7.2.2.4. Schools - Condominiums

Unlike other categories, the Schools and Condominiums categories are not subdivided into consumption blocks. The following graphs show the customers' distribution with condominium and school rates:

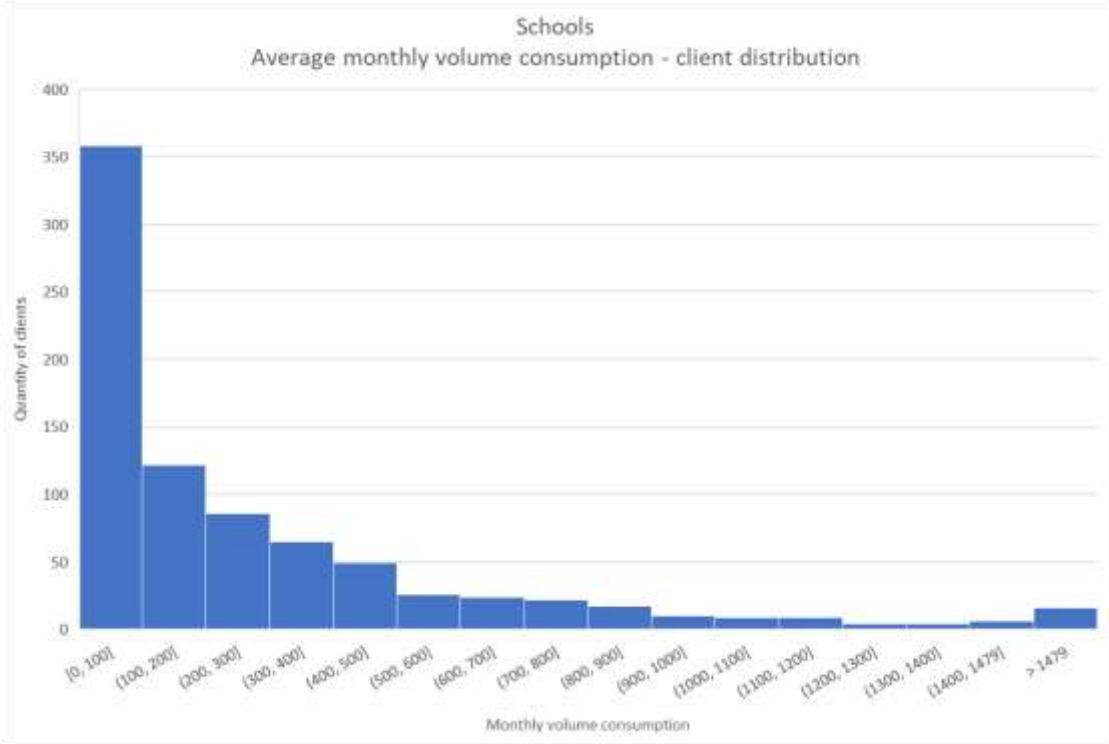
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Figure 16: Condominiums distribution



Source: Elaborated by Consultant based on NWC's information.

Figure 17: School's consumption distribution



Source: Elaborated by Consultant based on NWC's information.

The graphical presentation of consumption distribution for the condominium category shows a wider dispersion in average monthly consumption relative to schools. However, for both categories of

customers, the highest concentration of customers is in consumption below 100 m^3 per month, and it decreases as volumes increase.

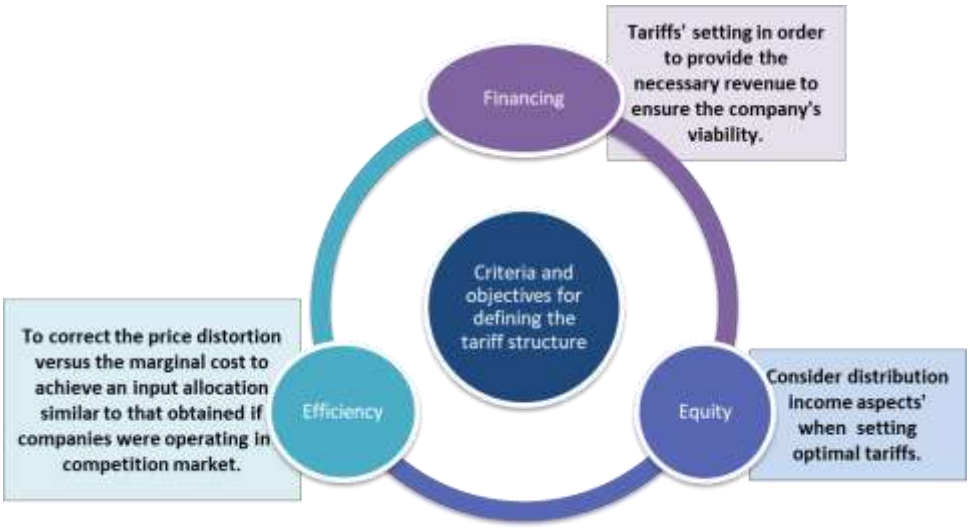
7.2.2.5. Social Considerations Relating to the Current Tariff Structure

The paper developed by Quantum named "Tariff structures that promote the universalization and efficient use of water[22]" states that promoting the efficient and rational use of water is essential given the key role of potable water and sanitation in the life and the health of the people and the increasing scarcity of this natural resource.

It is here where regulators and service providers' responsibilities are essential in their role of defining the rates that will be later applied to the different types of users of this scarce natural resource. Such rates must consider the people´s right to water, and regulators should take steps and implement mechanisms towards the most efficient use of water, avoiding all forms of wasting it.

Therefore, the definition of an adequate tariff structure should be guided by three objectives: efficiency, financing and equity.

Figure 18: Criteria and Objectives of the Tariff Structure



Source: Elaborated by Consultant.

To meet the three objectives above, the following requirements are defined: the availability of micro-metering for most users, the definition of a minimum consumption level to reflect people's basic needs and, finally, the definition of a correlation between family income and water consumption to determine the different customers' ability to pay and identify vulnerable populations who may require subsidies to access the service.

[22]Tariff structures promoting the universalization and efficient use of water[22]", paper elaborated by D. Halabi and A. Novara

Regarding micro metering, the residential category holds 66% of the volume consumed while 80% of that volume is metered. The recommendation is to develop internal strategies to improve this indicator.

In terms of consumption levels to reflect people's basic needs, the World Health Organization (WHO) establishes that around 50 and 100 liters of water per person per day are necessary to cover basic needs and stay safe from major health threats. This data is illustrated in the figure below:

Figure 19: Hierarchy of water needs



Source: WHO

Lastly, all public services (electricity, water and sanitation, natural gas, etc.) show a strong correlation between consumption and household income levels. Low-income families generally use water to satisfy their basic needs (drinking, cooking, washing, etc.). As family income goes up, further uses of the resource are added (swimming pools' filling, parks' watering, etc.). Low levels of per capita income and an inadequate income distribution in developing countries generally result in a high percentage of income spent on paying for services and a high percentage of the poor being unable to access the service. The WHO recommends that on average, the expenditure on water and sanitation should not exceed 5% of household income (considering about 3% to be spent on potable water and 2% on sanitation).

The following table shows water expenditures in relation to income in different countries and its share depending on the social level (poor or non-poor).

Table 88 Monthly water expenditure as a percentage of household income

Country, City	Year	Poor (%)	Non-Poor (%)
Bolivia	1999	1.80%	1.90%
Colombia	2003	3.80%	1.40%
Paraguay	2001	3.00%	1.00%
Uruguay	2003	7.30%	2.30%

Source: World Bank, Water, electricity and poverty – 2005.

For example, in Paraguay, in 2001, the poor population spent 3% of their income to potable water services, while for the non-poor tier this expenditure was only 1% of their income.

The "Jamaica Survey of Living Conditions 2023" report shows the portion of each household income quintile allocated to water payment.

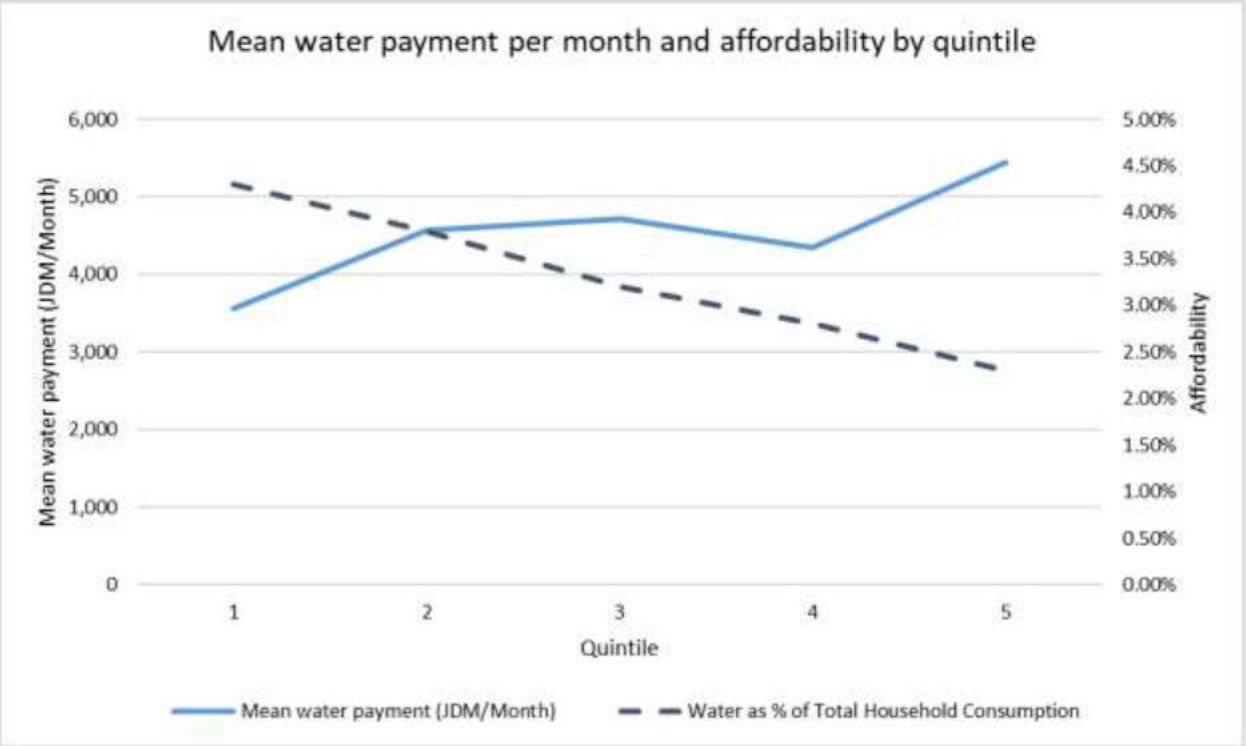
Table 89 Ratio of consumption to household expenditure

	Quintile				
Concept	Poorest	2	3	4	5
Water as % of Total Household Consumption	4.3%	3.8%	3.2%	2.8%	2.3%
Mean water payment (JDM/Month)	3,555	4,568	4,715	4,348	5,446

Source: Jamaica Survey of Living Conditions 2023

The information above is illustrated in the following graph.

Figure 20: Mean water payment per month and affordability by quintile



Source: Elaborated by Consultant.

The light blue continuous line represents the ratio between household income level (quintile) and estimated water expenditure. The dark blue dashed line is the household income for potable water supply services payment (affordability). As household income goes up, the relative share of water service expenditure in the total household budget clearly goes down, revealing that the poorest households make a greater effort to access the service (especially considering the poorest are generally not connected to the networks and afford higher costs to access water than connected users). In Jamaica, the first income quintile (most vulnerable households) paid in 2023 for water supply services, **4.3% of monthly household expenditure**, while the fifth quintile (wealthiest households) paid only **2.3%**. The relative weight of Jamaican household expenditure on water services is clearly **very high compared to the rates recommended by the WHO.**

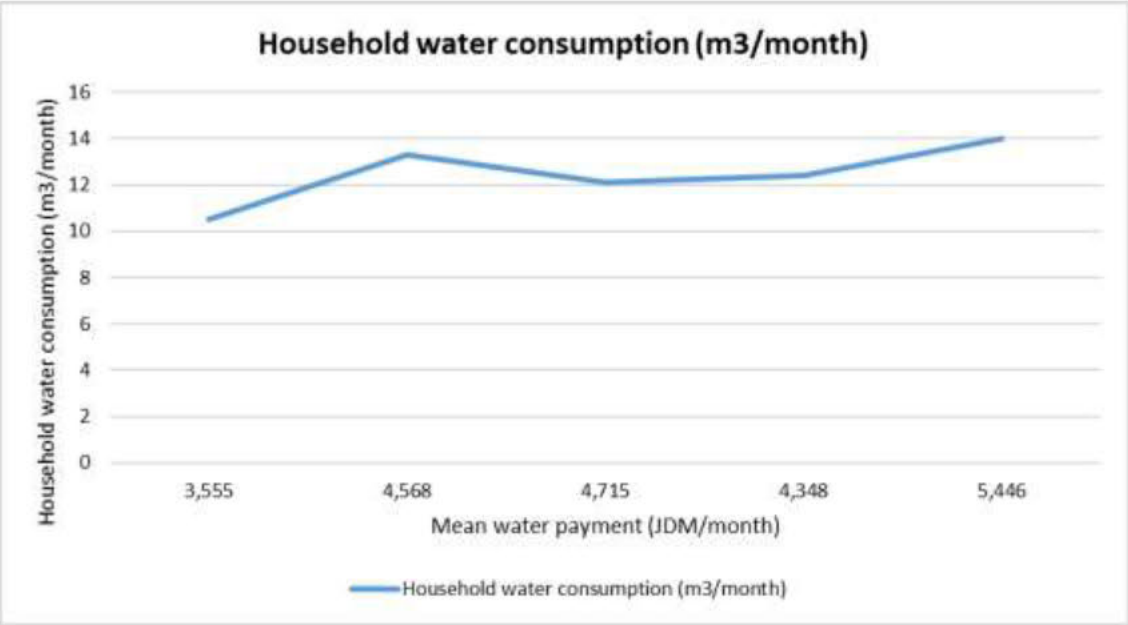
The information of Table 89 and the NWC's average residential tariff[23] lead to obtain volumes consumed per month.

Table 90: Consumed volume per household (m^3/month)

Quintile					
Concept	Poorest	2	3	4	5
Water as % of total household consumption	4.3%	3.8%	3.2%	2.8%	2.3%
Mean water payment (JDM/month)	3,555	4,568	4,715	4,348	5,446
Average tariff (JMD/m^3)	235.5	235.5	235.5	235.5	235.5
Household water consumption (m^3/month)	10.5	13.3	12.1	12.4	14.0

Source: Jamaica Survey of Living Conditions 2023 and NWC's database

Figure 21: Household water consumption (m^3/month)

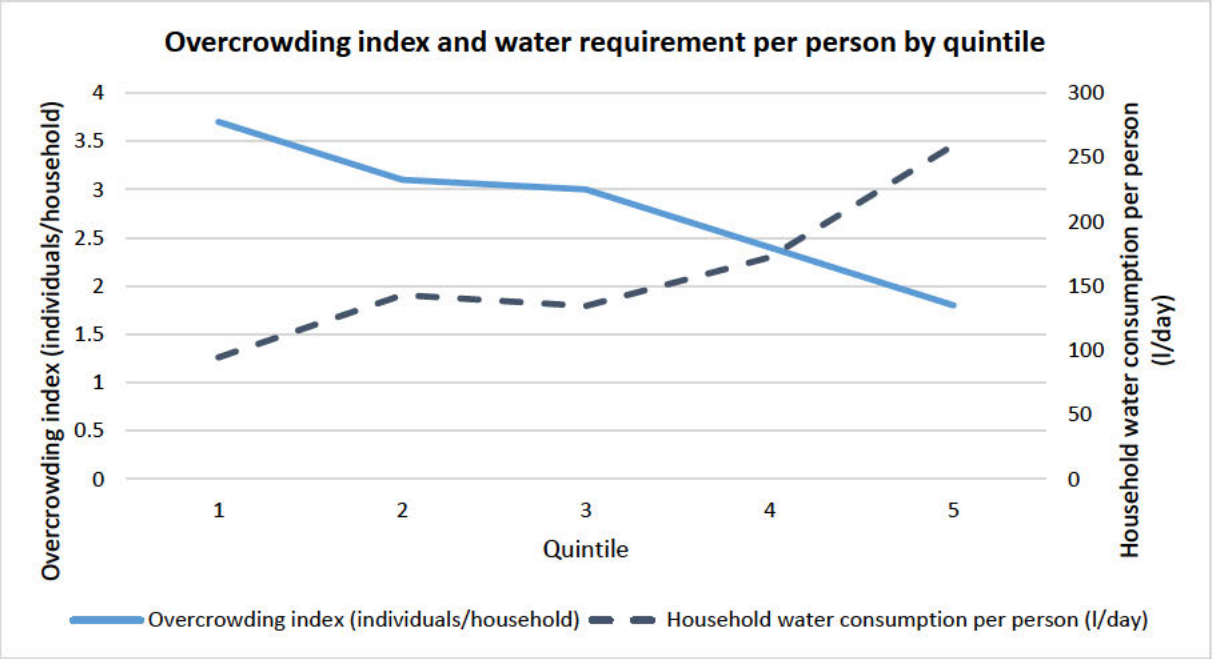


Source: Elaborated by Consultant.

The Jamaica Survey of Living Conditions 2023 reports that, on average, poorer households have 3.7 individuals per dwelling, compared to 1.8 individuals per dwelling in wealthier households. The figure below represents the overcrowding (individuals per household) index (left axis – light blue line) and the volume consumed per person in a day (right axis – dark blue broken line).

[23] Residential average tariff calculated using NWC's historical billing information.

Figure 22: Overcrowding index and water requirement per person by quintile (l/day)



Source: Elaborated by Consultant.

The first quintile (the poorest) shows an approximate consumption of 10.5m^3/month per household (approximately 94.6 l/day per person assuming an overcrowding index of 3.7), a value close to the maximum consumption limit recommended by the WHO. The fifth quintile consumes approximately 14m^3/month per household (consumption of 259.3 l/day per person assuming an overcrowding index of 1.8) well above the maximum limit established by the WHO to cover basic resource uses.

According to the previous numbers ranging from 10.5 to 14m^3/month, the poorest and richest households are consuming within the first block NWC´s residential rate. This suggests the possibility to **subdivide the residential block 1 to establish more affordable and equitable rates within this category**.

7.3. Proposed Tariff Structure

The NWC's current tariff structure is a two-part tariff: a fixed charge called service charge and a variable charge, known as the volumetric rate. The service charge is based on the diameter of the customer's connection, regardless of the type of customer (Table 77). Generally, the fix or service charge covers the cost of providing and maintaining the infrastructure necessary to deliver the service, allowing the company to at least recover these unavoidable expenses.

Assuming the cost of capital, which accounts for 36% of the revenue requirement (Table 1) represents the cost associated with providing and maintaining NWC's infrastructure. If the NWC were to use this method to determine the service charge, it would have a significant impact on customers' bills. To mitigate this, the service charge tariffs were capped to an increase of 10%, in keeping with the most

recent tariff approval by OUR. This means that the **service charge recovers 11.50% of the RR** and the remaining revenue will be recovered by the volumetric rate/variable charge.

In modifying the volumetric rate to account for the remaining **88.50% of the RR**, the first issue to address is the coexistence of two metering systems: metric and imperial. This coexistence leads to duplicity in tariffs applications and adds complexity to the billing methodology. Utilizing a single metering system reduces the company's data processing time and effort, streamlines the process, and trims by half the number of tariffs to be applied, thus minimizing billing errors. NWC data on the billing base indicates that 82% of the company's customers and 85% of volume are metered in the metric system (Table 81). Therefore, the best option is to unify and migrate all customers to the metric system.

Based on the reasons mentioned above, the entire proposal for the tariff structure modification is grounded on the assumption that the NWC is operating under a unified system, where volumes recorded in imperial gallons are converted using the conversion factor ***4.54609 L/IG.***

The focus now shifts to modifying customers' categories, particularly the need for a specific tariff rate for government customers, considering their consumption pattern. As previously discussed, these customers exhibit distinct consumption patterns from other categories, suggesting that creating a dedicated government tariff category with specific rates could enhance price signaling and lead to fairer tariffs.

The final adjustment to the tariff structure focuses on ensuring the adequacy and consistency of the different consumption blocks within each tariff category. One significant proposed change involves the number of consumption blocks for the residential rate category Figure 22 illustrates that both the poorest and wealthiest households fall within the first block of NWC's current residential rate (10.5 to 14m3/month). This means that the poorest and wealthiest households are paying the same rate for their consumption. The proposal aims to subdivide the first block of the residential category and enables different rates to be established for different water needs. Therefore, a residential customer, using water for drinking or cooking only, will pay a lower variable rate than a customer using water superfluously in irrigation, swimming pools, etc.

It is important to note that the minimum consumption rate is discouraged. However, introducting greater progressivity into the residential tariff could help address one of the potential causes for delinquency (or non-paying customers): high tariffs at low consumption levels (generally associated with vulnerable users). Although a direct relationship between consumption and non-payment has not beennot be ascertain, most customers with unpaid bills are consuming below $7m^3$. Splitting the residential tariff first block of consumption and charging more affordable tariffs might reduce bad debt. This is detailed in section 7.3.2.

7.3.1. Redefinition of the Consumption Blocks

The proposed consumption-block structure is based on the detailed statistical analysis of customer-level billing information provided by NWC. This information was used to characterize the distribution

of consumption within each customer category and to identify groups of customers with differentiated consumption patterns.

The purpose of the analysis is to establish consumption ranges that distinguish moderate-use customers from customers displaying more intensive water use, while seeking to balance the objectives of economic efficiency, appropriate price signals and mitigation of potential social impacts.

For the present tariff proposal, a distinction is made between the distributional information used for tariff design and the current scale of the customer base and demand. Historical customer-level billing information provides the detailed consumption distributions required to identify and define the tariff blocks, whereas the current aggregate number of customers and consumption volumes are obtained from the Technical Model. For the base year, the Technical Model incorporates actual customer and consumption information collected at parish level and provided by NWC.

Accordingly, the historical billing information is not used to determine the current aggregate level of demand. Rather, it provides the statistical distribution of consumption that is applied within the updated customer and demand framework of the Technical Model.

The Dalenius and Hodges statistical methodology[24] was used to determine the boundaries of the proposed consumption blocks. This methodology identifies strata that minimize variability within each group while maximizing differentiation between groups, thereby producing consumption ranges that are as internally homogeneous as possible.

The resulting block structure is subsequently evaluated within the current tariff and demand framework to assess its impact on customer bills, tariff progression and revenue recovery.

7.3.1.1. Residential

The definition of the proposed residential consumption blocks draws on the detailed analysis of NWC´s historical billing records. These customer-level data were used to examine the shape and dispersion of residential consumption and to identify statistically meaningful consumption ranges.

The analysis considered both the number of bills and the monthly consumption of metered residential customers. A histogram of bills by volume consumed was prepared in order to identify the main concentrations of residential demand and support the statistical definition of the block boundaries.

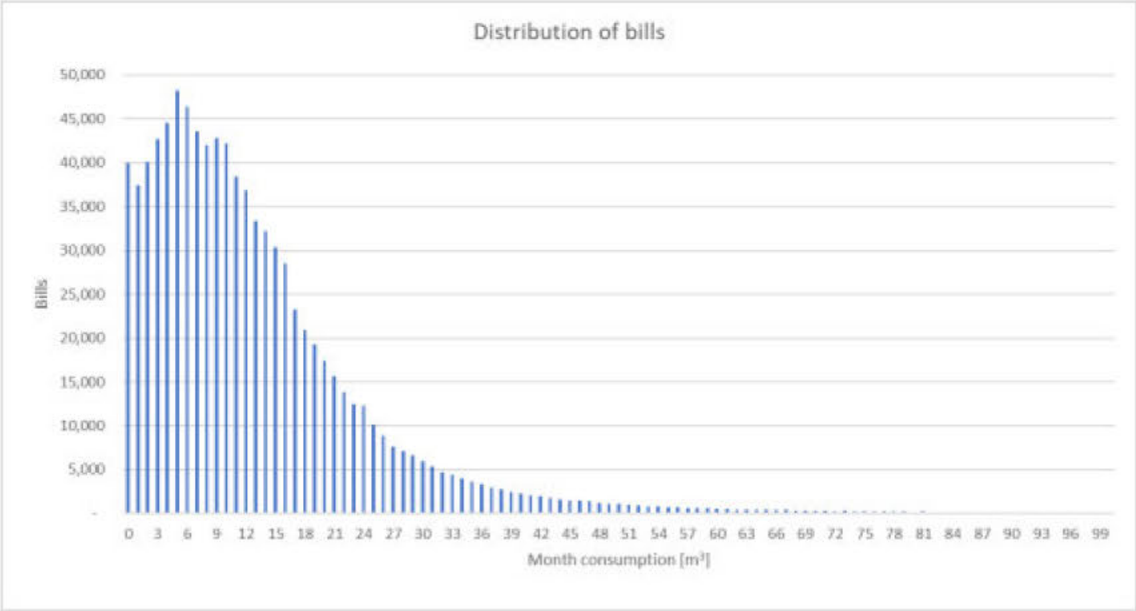
The analysis shows a marked concentration of monthly residential consumption below 20 m³, with the highest frequency occurring at approximately 5 m³/month. The distribution up to 100 m³ covers approximately 99.5% of residential bills, indicating that consumption above this level is limited to a very small proportion of customers.

The concentration around 5 m³/month is also broadly consistent with the average consumption of approximately 6.3 m³/customer observed within the first residential metric block. This provides

[24] Dalenius, T., & Hodges, J. L. (1959). Minimum Variance Stratification. Journal of the American Statistical Association, 54(285), 88–101. https://doi.org/10.1080/01621459.1959.10501501

additional evidence that the lower consumption range captures a significant group of residential customers with relatively homogeneous consumption characteristics.

Figure 23: Residential bill distribution



Source: Elaborated by Consultant based on NWC's information.

The Dalenius and Hodges methodology was applied to this distribution to identify block boundaries that minimize dispersion within each group while maximizing differentiation between groups. The resulting block structure therefore reflects the statistical characteristics of residential consumption observed in the detailed customer-level billing information.

Table 91. Consumption Blocks Residential Categories

Block	m³	
	From	To
1	0	7
2	8	15
3	16	27
4	28	63
5	64	999999

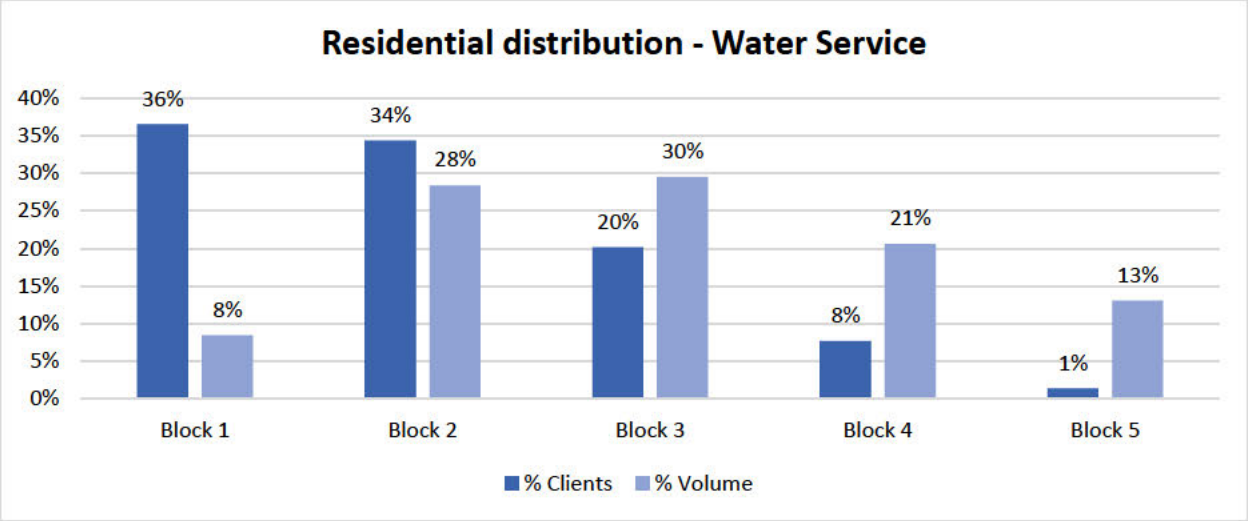
Source: Elaborated by Consultant based on NWC's information.

For the present tariff proposal, these consumption ranges are used as structural parameters for tariff design and are applied within the updated customer and demand framework provided by the Technical Model. The absolute number of residential customers and aggregate residential consumption used for tariff and revenue calculations are therefore based on the current base-year information incorporated into the Technical Model, rather than on the historical billing totals.

This approach allows the detailed consumption information available at customer level to be used for the design of an appropriate block structure, while ensuring that the tariff simulations and revenue calculations remain consistent with the updated scale of NWC's customer base and demand.

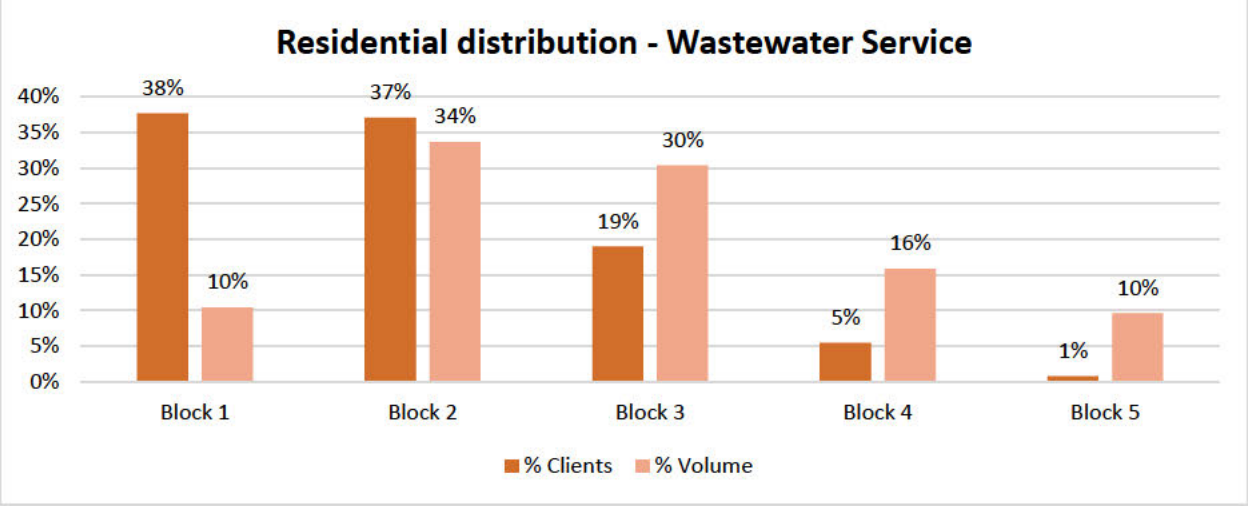
The figures below present the distribution of customers and volumes for the residential and staff category according to the proposed number of blocks.

Figure 24: Residential category proposed distribution – water service



Source: Tariff Structure Model

Figure 25: Residential category proposed distribution – sewerage service



Source: Tariff Structure Model

The results from applying the Dalenius-Hodges method align with expectation: as volume increases, the number of customers within each block decreases. The distribution of consumed volume follows a similar cascading pattern, except for the first block. This pattern suggests that the principle of encouraging conservation can be achieved for blocks 2 to 5 through appropriate price signaling.

Regarding the changes resulting from the redistribution of the consumption limit, Block 1 of the current residential category (Figure 12 and Figure 13) has been subdivided into two, while Block 2 transitions to the new Block 3. Additionally, the new limit for Block 1 is set at 7m³, which is much closer to the average consumption for Block 1 of the residential water metric rate (Table 86).

One of the main benefits of this modification is that it establishes more affordable rates for the poorest households, while reducing the proportion of their household income spent on water.

7.3.1.2. Commercial

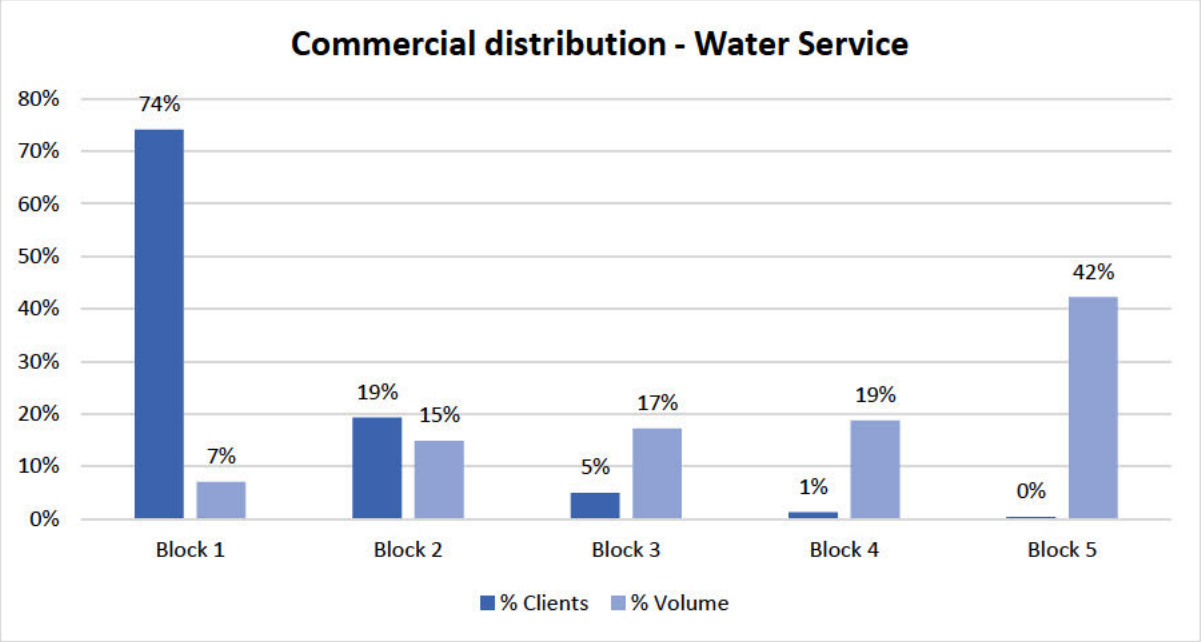
As with the residential category, a similar assessment using the Dalenius-Hodges (D-H) method was used on the billing base data for customers within the commercial category. Applying the D-H method to the commercial category results in the following number of blocks and consumption limits:

Table 92. Consumer blocks Commercial category

Block	m^3	
	From	To
1	0	21
2	22	105
3	106	452
4	453	2,000
5	2,001	999,999

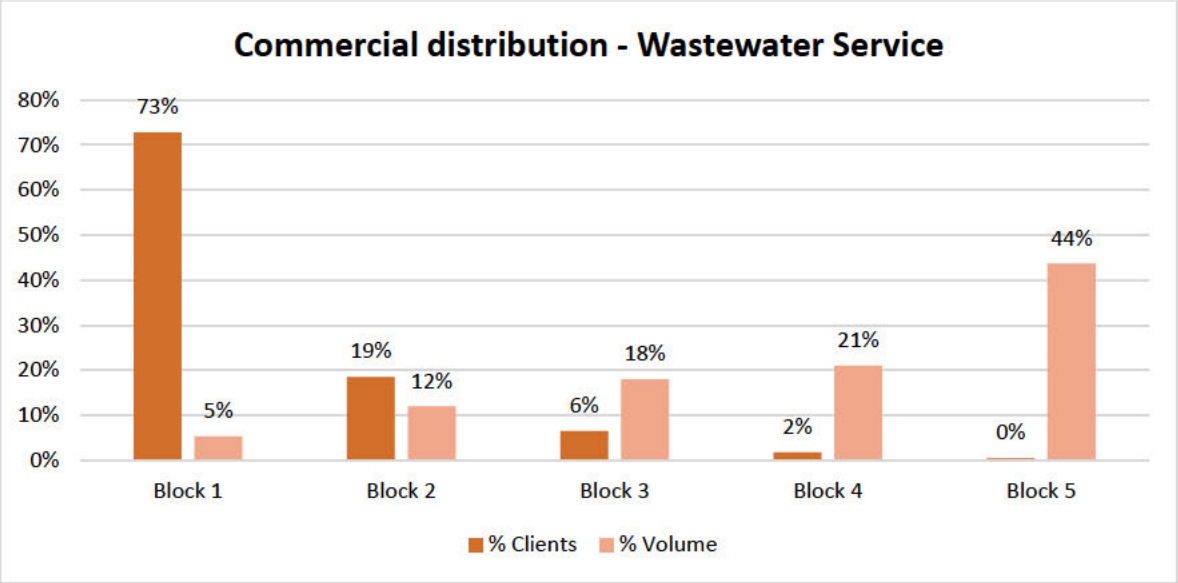
Source: Elaborated by Consultant based on NWC's information.

Figure 26: Commercial category distribution – water service



Source: Tariff Structure Model

Figure 27: Commercial category distribution – wastewater service



Source: Tariff Structure Model

An assessment of the redistribution within the commercial category reveals that the number of customers decreases as the number of blocks increases; similar to what occurred with the residential category. However, the consumed volume patterns are reversed. Compared with the current commercial block structure, where volume is highly concentrated in the first, the new configuration has more evenly distributed volumes.

The upper limit of the first block is set at 21 m³, with 74% of water and 73% of sanitation customers grouped in this block, accounting for only 7% and 5% of the total volumes. The first block includes small businesses. In contrast, Block 5 consists of a marginal number of customers consuming over 2000 m³ per month. It would be necessary to assess the feasibility of creating special contracts with these users and eliminate the existing decreasing tariff for commercial customers.

7.3.1.3. Government

As with the Residential and Commercial categories, an assessment using the Dalenius–Hodges (D-H) method was applied to billing base data for government customers (who are currently charged either a commercial or residential rate). Applying the D-H method to government customers results in the following number of blocks and consumption limits:

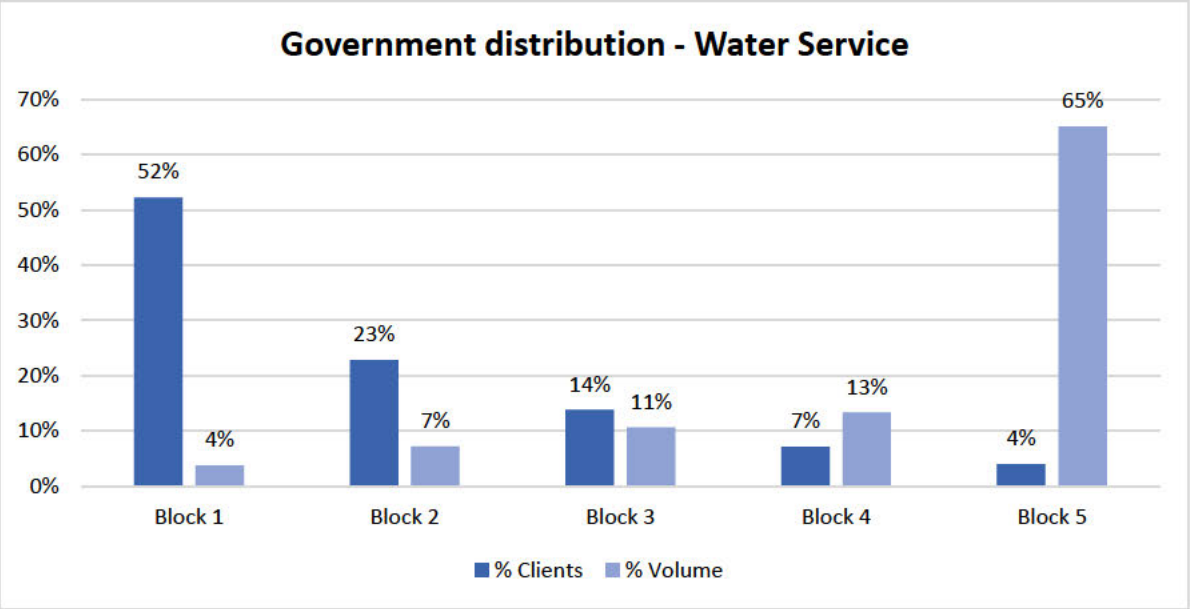
Table 93. Consumer blocks Government category

Block	m³	
	From	To
1	0	29
2	30	87
3	88	205
4	206	554

5	555	999,999

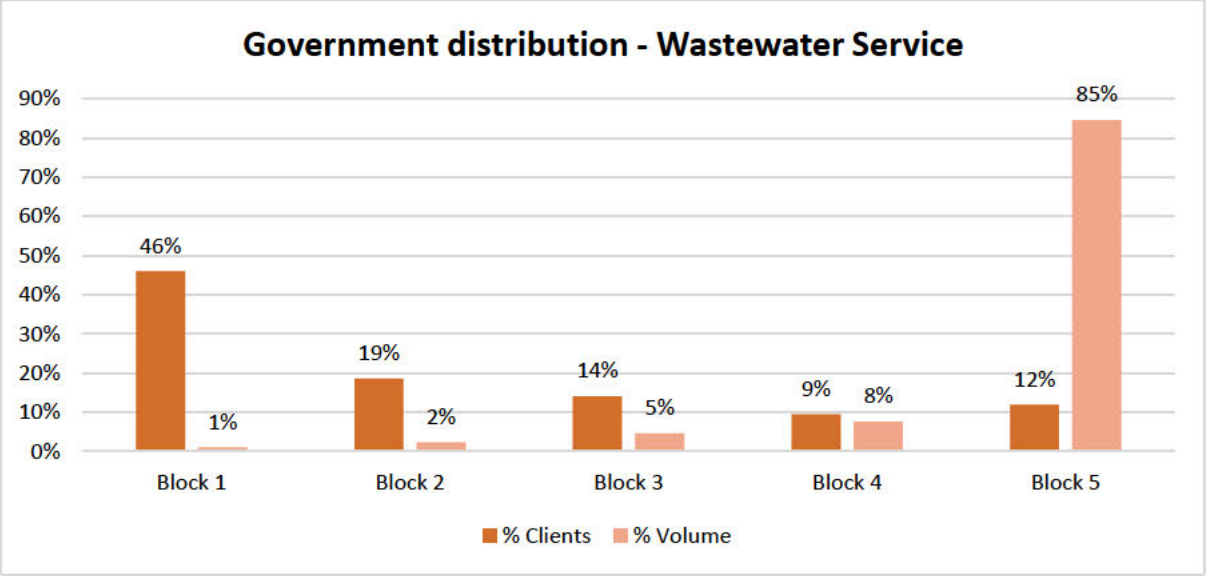
Source: Elaborated by Consultant based on NWC's information.

Figure 28: Government category distribution – water service



Source: Tariff Structure Model

Figure 29: Government category distribution – sewerage service



Source: Tariff Structure Model

Treating the government category as a separate group allows for a more accurate analysis of these customers' consumption behavior. It also avoids "distorting" the commercial and residential categories (as is the case under the current practice of applying commercial or residential tariffs to

government users) with patterns that are clearly not comparable to those of residential customers—especially—or commercial customers.

7.3.1.4. Current and Proposed Blocks

The following table compares current blocks, and the blocks proposed by category.

Table 94. Current and proposed blocks by category

Category	Current Blocks	Proposed Blocks
Residential/ Staff	Block 1: 0 to 14 m³ Block 2: 15 to 27 m³ Block 3: 28 to 41 m³ Block 4: >41 m³	Block 1: 0 to 7 m³ Block 2: 7 to 15 m³ Block 3: 16 to 27 m³ Block 4: 28 to 63 m³ Block 5: >63 m³
Residential – Standpipes	-	Single Block
Commercial	Block 1: 0 to 9,100 m³ Block 2: >9,100 m³	Block 1: 0 to 21 m³ Block 2: 22 to 105 m³ Block 3: 106 to 452 m³ Block 4: 453 to 2,000 m³ Block 5: >2,000 m³
Government	-	Block 1: 0 to 29 m³ Block 2: 30 to 87 m³ Block 3: 88 to 205 m³ Block 4: 206 to 554 m³ Block 5: >554 m³
Condominiums	Single Block	Single Block
School	Single Block	Single Block

Source: Elaborated by Consultant based on NWC's information.

7.3.2. Redefinition of Tariff Progressivity

Progressivity demonstrates how the volumetric rates increase as consumption rises. To utilize this approach, volumetric rates are mapped in a matrix that aligns the categories of customers and the consumption blocks. This structure illustrates that higher water consumption results in proportionally higher tariff rates, thereby encouraging conservation among customers.

The following table presents the progressivity matrix proposed.

Table 95: Progressivity matrix proposed – Volumetric Tariff

	Subcategory	Block1	Block2	Block3	Block4	Block5
1	Residential	100%	120%	150%	150%	150%
2	Commercial	350%	150%	110%	110%	40%
3	Government	250%	120%	120%	120%	120%

	Subcategory	Block1	Block2	Block3	Block4	Block5
4	Staff	100%	120%	150%	150%	150%
5	Condominiums	200%				
6	School	150%				

Source: Tariff Structure Model

The values in Table 99 express, for each category, how the volumetric rate progresses across consumption blocks. The value shown for Block 1 sets the starting rate for that category, calculated from the base tariff; the values shown for Blocks 2 to 5 indicate the increase applied to the immediately preceding block of the same category. For example, a Block 2 value of 120% for the residential category means that the Block 2 rate is 120% of that category's Block 1 rate, and a Block 3 value of 170% means the Block 3 rate is 170% of the Block 2 rate.

The inclusion of a discount in the commercial category has been specifically designed to avoid the defect of large customers.

The NWC's employees, staff subcategory, have the same progressivity as the residential subcategory. This means that staff customers are treated as residential customers, if there is a company decision to offer a special discount, this policy should be adopted by the Commission (or else, there would be a cross-subsidy from the rest of the categories to NWC staff).

Finally, regarding the relationship between water and wastewater rates, the existing 15.5% value between the services has been applied, as shown in Table 96.

Table 96: Relations between categories and consumption blocks current tariff– Volumetric Tariff

Category	Block	Water [JMD/m³]	Sewerage [JMD/m³]	Relation
RES	Block1	$162,14	$187,26	15.5%
RES	Block2	$288,56	$333,30	15.5%
RES	Block3	$314,53	$363,28	15.5%
RES	Block4	$536,54	$619,68	15.5%
COM	Block1	$619,60	$715,64	15.5%
COM	Block2	$361,15	$417,14	15.5%
CND	Block1	$307,35	$355,02	15.5%
SCH	Block1	$245,57	$283,58	15.5%
STAFF	Block1	$162,14	$187,26	15.5%
STAFF	Block2	$288,56	$333,30	15.5%
STAFF	Block3	$314,53	$363,28	15.5%
STAFF	Block4	$536,54	$619,68	15.5%

Source: Consultant's calculation based on NWC's information.

To preserve tariff stability and maintain consistency with the structure approved in the most recent OUR review, we propose to retain the existing 15.5% sewerage premium for the current tariff setting. While the Cost-of-Service results suggest that average sewerage costs are approximately 2% higher than water costs over 2022–2027, the 15.5% differential provides a pragmatic and transparent pricing relationship during a period of service strengthening and expansion, and should be reassessed in the next review as sewer coverage improves.

7.4. Tariff Structure Model – Impact Assessment

A Tariff Structure Model was developed to analyze the impact of the new structure on the different categories and customer bills. This model utilized NWC's historical billing information which provided details on the category of customer, applied tariffs, volume consumed per service, volume billed, amount billed for each service, service charges, and all other factors contributing to the final bill (X-Factor, K-Factor, Others).

The tariff structure model incorporated the number of bills (customers), and the volume consumed per category per month for the base year. The information used was aggregated by category. The proposed tariff structure is then set up using the following information and principles:

- NWC's revenue from April 2021 to March 2022 was updated using a factor of **1.2994**[25] to reflect changes in tariffs up to April 2026. The revenue is then further adjusted to account for in the **54.93%** corresponding to the tariff variation of the period, which results from the ratio between the revenue required present value and the revenue verified.
- Two-part tariff: The Service Charge and variable rate are modeled separately. The Service Charge is independent of customer category, so it is not necessary to model its impacts with the volumetric rate. The other factors applied (PAM, K-Factor and X – Factor) are calculated as percentages of the volumetric value billed.
- The number and limits of the consumption blocks were modified as presented in Section 7.3.1.
- Affordability and social considerations are integrated into the tariff structure, as presented in Section 7.3.2
- The average relation of **15.5%** between sewerage variable rate and water variable rate were applied as presented in Section 7.3.2
- The main objective of the developed model is to modify the tariff structure adopted while maintaining NWC's volumetric rate revenues. Therefore, regardless of the defined tariff structure, NWC's total revenues should remain unchanged.

Table 97: Volumetric rate revenue to be adjusted

Water + Sewage Revenue to Adjust [JMD April 2026]:	**63,408,172,799**
Service Charge	7,289,267,141
Variable Rate	56,118,905,658

Source: Tariff Structure Model

The calculation model adjusts rates in accordance with the principles outlined above, while maintaining the total quantities consumed by category and company revenue.

[25] This factor was calculated by comparing the tariff changes effective from April 2025 with the tariffs applied during the period from April 2021 to March 2022.

7.4.1. Results: Bill Impacts

The table below presents the estimated total bill impact of the tariff adjustment on the **water service** across the different categories, service charges and consumption blocks. This estimation considers the impact of the Service Charge, the Variable Rate, the K – Factor (see section 6.4) and the X – Factor (see section 6.5).

Table 98: Bill Impact (%) by category for different consumption blocks and connection types – water service

Category	Consumption Block / Connection	Clients participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Weighted Average Change (%)
Residential 5/8 inch / 15mm	For up to 7m3 (3.29m3-->3m3)	36%	1.990,97	9,35%	
	For the next 8m3 (11.73m3-->12m3)	34%	4.364,88	25,27%	
	For the next 12m3 (20.82m3->21m3)	20%	7.271,72	27,94%	21,44%
	For the next 36m3 (38.18m3-->38m3)	8%	14.684,16	40,29%	
99%	Over 63m3 (133.4m3-->133m3)	1%	88.263,46	46,05%	
Commercial <2000 - 5/8 inch / 15mm	For up to 21m3 (5.47m3-->5m3)	74%	5.745,63	15,31%	
	For the next 84m3 (44.25m3-->44m3)	19%	44.745,69	47,14%	25,80%
	For the next 347m3 (200.68m3-->201m3)	5%	243.646,00	80,55%	
91%	For the next 1548m3 (863.4m3-->863m3)	1%	1.163.992,29	102,68%	
	Over 2000m3 (6967.8m3-->6968m3)				
Commercial <2000- 1 inch / 25mm	For up to 21m3 (5.47m3-->5m3)	74%	8.542,42	11,28%	
	For the next 84m3 (44.25m3-->44m3)	19%	47.542,48	43,61%	22,04%
	For the next 347m3 (200.68m3-->201m3)	5%	246.442,78	79,04%	
5%	For the next 1548m3 (863.4m3-->863m3)	1%	1.166.789,08	102,22%	
	Over 2000m3 (6967.8m3-->6968m3)				
Commercial <2000- 2 inch / 50mm	For up to 21m3 (5.47m3-->5m3)	74%	15.714,57	7,74%	
	For the next 84m3 (44.25m3-->44m3)	19%	54.714,63	36,74%	
	For the next 347m3 (200.68m3-->201m3)	5%	253.614,94	75,45%	17,88%
2%	For the next 1548m3 (863.4m3-->863m3)	1%	1.173.961,23	101,06%	
	Over 2000m3 (6967.8m3-->6968m3)				
Commercial >2000 - 4 inch / 100mm	2.500m3	7%	3.333.558,61	85,37%	
	5.000m3	20%	4.872.365,30	36,70%	
	1.000m3	16%	7.949.978,70	16,39%	
	15.000m3	17%	11.027.592,09	24,06%	
	20.000m3	11%	14.105.205,49	28,84%	33,33%
	25.000m3	8%	17.182.818,88	32,11%	
	30.000m3	10%	20.260.432,28	34,49%	
	35.000m3	8%	23.338.045,67	36,29%	
54%	40.000m3	3%	26.415.659,07	37,71%	
Government - 5/8 inch / 15mm	For up to 29m3 (11.84m3-->12m3)	52%	8.773,59	61,62%	
	For the next 58m3 (52.53m3-->54m3)	23%	35.782,95	42,24%	
	For the next 118m3 (127.72m3-->128m3)	14%	95.227,76	31,55%	52,82%
	For the next 349m3 (309.87m3-->310m3)	7%	267.719,45	43,93%	
84%	Over 554m3 (2733.94m3-->2734m3)	4%	3.195.299,37	87,89%	
Government - 1 inch / 25mm	For up to 29m3 (11.84m3-->12m3)	52%	11.570,37	42,45%	
	For the next 58m3 (52.53m3-->54m3)	23%	38.579,73	38,52%	
	For the next 118m3 (127.72m3-->128m3)	14%	98.024,54	30,55%	41,77%
	For the next 349m3 (309.87m3-->310m3)	7%	270.516,23	43,36%	
7%	Over 554m3 (2733.94m3-->2734m3)	4%	3.198.096,16	87,76%	
Government - 2 inch / 50mm	For up to 29m3 (11.84m3-->12m3)	52%	18.742,53	24,69%	
	For the next 58m3 (52.53m3-->54m3)	23%	45.751,89	31,62%	
	For the next 118m3 (127.72m3-->128m3)	14%	105.196,70	28,30%	30,49%
	For the next 349m3 (309.87m3-->310m3)	7%	277.688,39	41,96%	
5%	Over 554m3 (2733.94m3-->2734m3)	4%	3.205.268,31	87,42%	
Condominium	5/8 inch / 15mm	26%	161.866,99	37,85%	
	3/4 inch / 20mm	0%	163.655,81	37,35%	
	1 inch / 25mm	12%	164.663,77	37,08%	
	1 1/4 inch / 30mm	0%	168.463,10	36,10%	
	1 1/2 inch / 15mm	2%	168.463,10	36,10%	34,99%
	2 inch / 50mm	32%	171.835,93	35,27%	
	3 inch / 75mm	4%	181.198,47	33,19%	
	4 inch / 100mm	24%	194.030,80	30,74%	
	6 inch / 150mm	0%	211.650,99	27,98%	
School	5/8 inch / 15mm	50%	98.522,17	29,30%	
	3/4 inch / 20mm	0%	100.310,99	28,73%	
	1 inch / 25mm	28%	101.318,96	28,43%	
	1 1/4 inch / 30mm	0%	105.118,29	27,34%	
	1 1/2 inch / 15mm	2%	105.118,29	27,34%	28,32%
	2 inch / 50mm	17%	108.491,11	26,45%	
	3 inch / 75mm	1%	117.853,66	24,29%	
	4 inch / 100mm	2%	130.685,98	21,93%	
	6 inch / 150mm	0%	148.306,18	19,46%	

Source: Tariff Structure Model

The residential category water bill was simulated for the average monthly consumption within each new block[26]. The Service Charge was always kept in the 5/8 inch / 15mm diameter connection[27]. Customer's distribution in each block consumption was obtained from section 7.2.2.1. The final bill (in JMD$ from April 2024) and the percentage of bill total impact are obtained from section 7.4.1. The weighted average change is an average between customer's distribution and total bill impact.

It is noteworthy that the final bill (in JMD$ from April 2026) for the first consumption block of residential category (up to 7m^3) is **1,990.97** which represents **2.19%**[28] of total household expenditure. For the second consumption block (up to 15m^3), the final bill is **4,364.88** representing **2.55%** of the household expenditure. **Both percentages are in keeping with the suggestion by WHO** (see section 7.2.2.5).

The commercial category water bill was simulated for the average monthly consumption within each new block and the three most used diameter connections: 5/8 inch / 15mm, 1 inch / 25mm and 2 inch / 50mm with 91%; 5% and 2% share[29]. The final bill in JMD$ from April 2026 and the percentage of total bill impact can be obtained from the tables presented in section 7.4.1.2. The final weighted average change is the average between the customer's distribution as per the consumption and type of connection and the total bill impact.

The government category water bill was simulated for the average monthly consumption within each new block and the three most used diameter connections: 5/8 inch / 15mm, 1 inch / 25mm and 2 inch / 50mm with 84%; 7% and 5% share[30]. The final bill in JMD$ from April 2026 and the percentage of total bill impact can be obtained from the tables presented in section 7.4.1.3. The final weighted average change is the average between the customer's distribution as per the consumption and type of connection and the total bill impact.

Condominiums and schools' categories water bill was simulated for all diameter connections[31]. The final bill in JMD$ from April 2026 and the percentage of total bill impact can be obtained from the tables presented in sections 7.4.1.4 and 7.4.1.5. The final weighted average change is the average between the customer's distribution as per their type of connection and the total bill impact.

[26] In each block of the table, the average consumption used for the impact simulation is presented. For example, for residential customers in the first block (from 0 to 7 m³), the average consumption is 3.3 m³. However, for simplicity, a rounded value of 3 m³ was used to simulate the average impact for that category and consumption block.

[27] The 5/8 inch / 15mm diameter connection holds a 99% of residential customer's connections according to the NWC's database information (Table 80)

[28]The following calculations have been made according to the information published in the Jamaica Survey Living Condition 2019.

	Water as % of Total Household Consumption (Study)	Mean water payment (JDM/Month Dec 2023)	Household Income (Dec/2023)	Household Income (March/2026)	Water as % of Total Household Income
Poorest	4,3%	3.555,00	82.674,42	90.966,66	2,19%
4th quintile	2,8%	4.348,00	155.285,71	170.860,87	2,55%

[29] Commercial customers' connections according to the NWC's database information (Table 80).

[30] Government customers' connections according to the NWC's database information (Table 80).

[31] Condominiums and School customers' connections according to the NWC's database information (Table 80)

7.4.1.1. Residential Bill Impact

The table below presents a comparative analysis of the final residential water bill (in JMD, as of April 2026), illustrating the average consumption within each new consumption block under the current and proposed rate structures.

Table 99. Residential final bill impact (%) connection type 5/8 /15mm - different consumption blocks– water

Residential - 5/8 inch / 15 mm	Actual Rates (April 2026)			Proposed Rates J$			Change	
	Usage (m3)	Rate (JMD $)	Bill (JMD $)	Usage (m3)	Rate (JMD $)	Bill (JMD $)	JMD $	%
Below 7m3	**2,00**			**2,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	10,00%
<=7	2,0	162,14	324,28	2,0	225,14	450,29	126,01	38,86%
Sub Total			**1.597,18**	**Sub Total**		**1.850,48**	**253,30**	**15,86%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	(79,86)		-3,78%	(69,97)		
K-Factor		20,00%	303,46		11,82%	210,46		
Total Bill Charges			**1.820,79**			**1.990,97**	**170,18**	**9,35%**
Below 15 m3	**11,00**			**11,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	10,00%
<=7	7	162,14	1.134,98	7	225,14	1.576,00	441,02	38,86%
>7;<=14	4,0	162,14	648,56	4	270,17	1.080,69	432,13	66,63%
Sub Total			**3.056,44**	**Sub Total**		**4.056,88**	**1000,44**	**32,73%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	(152,82)		-3,78%	(153,39)		
K-Factor		20,00%	580,72		11,82%	461,40		
Total Bill Charges			**3.484,34**			**4.364,88**	**880,54**	**25,27%**
Below 27 m3	**19,00**			**19,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	10,00%
<=7	7,0	162,14	1.134,98	7	225,14	1.576,00	441,02	38,86%
>7;<=14	7,0	162,14	1.134,98	7	270,17	1.891,20	756,22	66,63%
>14;<=15	1,0	288,56	288,56	1	270,17	270,17	-18,39	-6,37%
>15;<=27	4,0	288,56	1.154,24	4	405,26	1.621,03	466,79	40,44%
Sub Total			**4.985,66**	**Sub Total**		**6.758,60**	**1772,94**	**35,56%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	(249,28)		-3,78%	(255,54)		
K-Factor		20,00%	947,28		11,82%	768,67		
Total Bill Charges			**5.683,65**			**7.271,72**	**1.588,07**	**27,94%**
Below 63 m3	**33,00**			**33,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	10,00%
<=7	7,0	162,14	1.134,98	7	225,14	1.576,00	441,02	38,86%
>7;<=14	7,0	162,14	1.134,98	7	270,17	1.891,20	756,22	66,63%
>14;<=15	1,0	288,56	288,56	1	270,17	270,17	-18,39	-6,37%
>15;<=27	12,0	288,56	3.462,72	12	405,26	4.863,09	1400,37	40,44%
>27;<=41	6,0	314,53	1.887,18	6	607,89	3.647,32	1760,14	93,27%
Sub Total			**9.181,32**	**Sub Total**		**13.647,97**	**4.466,65**	**48,65%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	(459,07)		-3,78%	(516,03)		
K-Factor		20,00%	1744,45		11,82%	1552,21		
Total Bill Charges			**10.466,70**			**14.684,16**	**4.217,45**	**40,29%**
Over 63 m3	**118,00**			**118,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	10,00%
<=7	7,0	162,14	1.134,98	7	225,14	1.576,00	441,02	38,86%
>7;<=14	7,0	162,14	1.134,98	7	270,17	1.891,20	756,22	66,63%
>14;<=15	1,0	288,56	288,56	1	270,17	270,17	-18,39	-6,37%
>15;<=27	12,0	288,56	3.462,72	12	405,26	4.863,09	1400,37	40,44%
>27;<=41	14,0	314,53	4.403,42	14	607,89	8.510,41	4106,99	93,27%
>41;<=63	22	536,54	11.803,88	22	607,89	13.373,50	1.569,62	13,30%
>63	55	536,54	29.509,70	55	911,83	50.150,62	20.640,92	69,95%
Sub Total			**53.011,14**	**Sub Total**		**82.035,18**	**29.024,04**	**54,75%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	(2650,56)		-3,78%	(3101,77)		
K-Factor		20,00%	10072,12		11,82%	9330,04		
Total Bill Charges			**60.432,70**			**88.263,46**	**27.830,76**	**46,05%**

Source: Tariff Structure Model

7.4.1.2. *Commercial Bill impact*

The following tables compare the commercial water final bill (in JMD from April 2026) for different connection types and average consumption within each of the new consumption blocks (21m^3; 105m^3; 452m^3; 2,000m^3 and over 2,000m^3) charged with the current and proposed rates.

Table 100: Commercial final bill impact (%) connection type 5/8 /15mm - different consumption blocks– water

Commercial - 5/8 inch / 15 mm	Actual Rates (April 2026)			Proposed Rates J$			Change	
	Usage (m3)	Rate (JMD $)	Bill (JMD $)	Usage (m3)	Rate (JMD $)	Bill (JMD $)	JMD $	%
Below 21m3	**5,00**			**5,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	0,10
<=21	5,0	619,60	3.098,00	5	788,00	3.940,00	842,00	0,27
Sub Total			**4.370,90**	**Sub Total**		**5.340,19**	**842,00**	**19,26%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-218,55		-3,78%	-201,91		
K-Factor		20,00%	830,47		11,82%	607,35		
Total Bill Charges			**4.982,83**			**5.745,63**	**762,81**	**15,31%**
Below 105m3	**41,00**			**41,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	0,10
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	0,27
>21;<=105	20,0	619,60	12.392,00	20	1182,00	23.640,02	11.248,02	0,91
Sub Total			**26.676,50**	**Sub Total**		**41.588,23**	**14.911,73**	**55,90%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-1.333,83		-3,78%	-1.572,46		
K-Factor		20,00%	5.068,54		11,82%	4.729,92		
Total Bill Charges			**30.411,21**			**44.745,69**	**14.334,48**	**47,14%**
Below 452m3	**189,00**			**189,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	0,10
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	0,27
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	0,91
>105;<=452	84	619,60	52.046,40	84	1300,20	109.216,90	57.170,50	1,10
Sub Total			**118.377,30**	**Sub Total**		**226.453,20**	**108.075,90**	**91,30%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-5.918,87		-3,78%	-8.562,24		
K-Factor		20,00%	22.491,69		11,82%	25.755,03		
Total Bill Charges			**134.950,12**			**243.646,00**	**108.695,87**	**80,55%**
Below 2.000m3	**811,00**			**811,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	0,10
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	0,27
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	0,91
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	1,10
>452;<=2.000	359	619,60	222.436,40	359	1430,22	513.449,47	291.013,07	1,31
Sub Total			**503.768,50**	**Sub Total**		**1.081.855,60**	**578.087,10**	**114,75%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-25.188,43		-3,78%	-40.905,16		
K-Factor		20,00%	95.716,02		11,82%	123.041,85		
Total Bill Charges			**574.296,09**			**1.163.992,29**	**589.696,20**	**102,68%**
Over 2.000 m3	**6.550,00**			**6.550,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	0,10
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	0,27
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	0,91
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	1,10
>452;<=2.000	1548	619,60	959.140,80	1548	1430,22	2.213.982,67	1.254.841,87	1,31
>2.000	4550	619,60	2.819.180,00	4550	572,09	2.603.002,89	-216.177,11	-0,08
Sub Total			**4.059.652,90**	**Sub Total**		**5.385.391,69**	**1.325.738,79**	**32,66%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-202.982,65		-3,78%	-203.622,67		
K-Factor		20,00%	771.334,05		11,82%	612.492,62		
Total Bill Charges			**4.628.004,31**			**5.794.261,64**	**1.166.257,34**	**25,20%**

Source: Tariff Structure Model

[redacted]

Table 101: Commercial final bill impact (%) connection type 1inch /25mm - different consumption blocks– water

Commercial - 1 inch / 25 mm	Actual Rates (April 2026)			Proposed Rates J$			Change	
	Usage (m3)	Rate (JMD $)	Bill (JMD $)	Usage (m3)	Rate (JMD $)	Bill (JMD $)	JMD $	%
Below 21m3	**5,00**			**5,00**				
Service Charge		3.636,02	3.636,02		3.999,62	3.999,62	363,60	0,10
<=21	5,0	619,60	3.098,00	5	788,00	3.940,00	842,00	0,27
Sub Total			**6.734,02**	**Sub Total**		**7.939,63**	**842,00**	**12,50%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-336,70		-3,78%	-300,20		
K-Factor		20,00%	1.279,46		11,82%	902,99		
Total Bill Charges			**7.676,78**			**8.542,42**	**865,64**	**11,28%**
Below 105m3	**41,00**			**41,00**				
Service Charge		3.636,02	3.636,02		3.999,62	3.999,62	363,60	0,10
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	0,27
>21;<=105	20,0	619,60	12.392,00	20	1182,00	23.640,02	11.248,02	0,91
Sub Total			**29.039,62**	**Sub Total**		**44.187,66**	**15.148,04**	**52,16%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-1.451,98		-3,78%	-1.670,74		
K-Factor		20,00%	5.517,53		11,82%	5.025,56		
Total Bill Charges			**33.105,17**			**47.542,48**	**14.437,31**	**43,61%**
Below 452m3	**189,00**			**189,00**				
Service Charge		3.636,02	3.636,02		3.999,62	3.999,62	363,60	0,10
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	0,27
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	0,91
>105;<=452	84	619,60	52.046,40	84	1300,20	109.216,90	57.170,50	1,10
Sub Total			**120.740,42**	**Sub Total**		**229.052,64**	**108.312,22**	**89,71%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-6.037,02		-3,78%	-8.660,52		
K-Factor		20,00%	22.940,68		11,82%	26.050,67		
Total Bill Charges			**137.644,08**			**246.442,78**	**108.798,70**	**79,04%**
Below 2.000m3	**811,00**			**811,00**				
Service Charge		3.636,02	3.636,02		3.999,62	3.999,62	363,60	0,10
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	0,27
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	0,91
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	1,10
>452;<=2.000	359	619,60	222.436,40	359	1430,22	513.449,47	291.013,07	1,31
Sub Total			**506.131,62**	**Sub Total**		**1.084.455,03**	**578.323,41**	**114,26%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-25.306,58		-3,78%	-41.003,45		
K-Factor		20,00%	96.165,01		11,82%	123.337,49		
Total Bill Charges			**576.990,05**			**1.166.789,08**	**589.799,03**	**102,22%**
Over 2.000 m3	**6.550,00**			**6.550,00**				
Service Charge		3.636,02	3.636,02		3.999,62	3.999,62	363,60	0,10
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	0,27
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	0,91
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	1,10
>452;<=2.000	1548	619,60	959.140,80	1548	1430,22	2.213.982,67	1.254.841,87	1,31
>2.000	4550	619,60	2.819.180,00	4550	572,09	2.603.002,89	-216.177,11	-0,08
Sub Total			**4.062.016,02**	**Sub Total**		**5.387.991,12**	**1.325.975,10**	**32,64%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-203.100,80		-3,78%	-203.720,95		
K-Factor		20,00%	771.783,04		11,82%	612.788,26		
Total Bill Charges			**4.630.698,26**			**5.797.058,43**	**1.166.360,17**	**25,19%**

Source: Tariff Structure Model

Table 102: Commercial final bill impact (%) connection type 2inch /50mm - different consumption blocks– water

Commercial - 2 inch / 50 mm	Actual Rates (April 2026)			Proposed Rates J$			Change	
	Usage (m3)	Rate (JMD $)	Bill (JMD $)	Usage (m3)	Rate (JMD $)	Bill (JMD $)	JMD $	%
Below 21m3	**5,00**			**5,00**				
Service Charge		9.696,07	9.696,07		10.665,68	10.665,68	969,61	0,10
<=21	5,0	619,60	3.098,00	5	788,00	3.940,00	842,00	27,18%
Sub Total			**12.794,07**	**Sub Total**		**14.605,68**	**842,00**	**6,58%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-639,70		-3,78%	-552,24		
K-Factor		20,00%	2.430,87		11,82%	1.661,14		
Total Bill Charges			**14.585,24**			**15.714,57**	**1.129,33**	**7,74%**
Below 105m3	**41,00**			**41,00**				
Service Charge		9.696,07	9.696,07		10.665,68	10.665,68	969,61	0,10
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	0,27
>21;<=105	20,0	619,60	12.392,00	20	1182,00	23.640,02	11.248,02	0,91
Sub Total			**35.099,67**	**Sub Total**		**50.853,72**	**15.754,05**	**44,88%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-1.754,98		-3,78%	-1.922,79		
K-Factor		20,00%	6.668,94		11,82%	5.783,71		
Total Bill Charges			**40.013,62**			**54.714,63**	**14.701,01**	**36,74%**
Below 452m3	**189,00**			**189,00**				
Service Charge		9.696,07	9.696,07		10.665,68	10.665,68	969,61	0,10
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	0,27
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	0,91
>105;<=452	84	619,60	52.046,40	84	1300,20	109.216,90	57.170,50	1,10
Sub Total			**126.800,47**	**Sub Total**		**235.718,69**	**108.918,22**	**85,90%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-6.340,02		-3,78%	-8.912,57		
K-Factor		20,00%	24.092,09		11,82%	26.808,81		
Total Bill Charges			**144.552,54**			**253.614,94**	**109.062,40**	**75,45%**
Below 2.000m3	**811,00**			**811,00**				
Service Charge		9.696,07	9.696,07		10.665,68	10.665,68	969,61	0,10
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	0,27
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	0,91
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	1,10
>452;<=2.000	359	619,60	222.436,40	359	1430,22	513.449,47	291.013,07	1,31
Sub Total			**512.191,67**	**Sub Total**		**1.091.121,09**	**578.929,42**	**113,03%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-25.609,58		-3,78%	-41.255,49		
K-Factor		20,00%	97.316,42		11,82%	124.095,64		
Total Bill Charges			**583.898,50**			**1.173.961,23**	**590.062,73**	**101,06%**
Over 2.000 m3	**6.549,00**			**6.549,00**				
Service Charge		9.696,07	9.696,07		10.665,68	10.665,68	969,61	0,10
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	0,27
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	0,91
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	1,10
>452;<=2.000	1548	619,60	959.140,80	1548	1430,22	2.213.982,67	1.254.841,87	1,31
>2.000	4549	619,60	2.818.560,40	4549	480,00	2.183.520,00	-635.040,40	-0,23
Sub Total			**4.067.456,47**	**Sub Total**		**4.975.174,29**	**907.717,82**	**22,32%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-203.372,82		-3,78%	-188.112,27		
K-Factor		20,00%	772.816,73		11,82%	565.837,68		
Total Bill Charges			**4.636.900,38**			**5.352.899,70**	**715.999,33**	**15,44%**

Source: Tariff Structure Model

Table 103: Commercial final bill impact (%) connection type 4inch /100mm - different cons.blocks– water (1/2)

Commercial >2.000 m3 - 4 inch / 100 mm	Actual Rates (April 2026)			Proposed Rates J$			Change	
	Usage (m3)	Rate (JMD $)	Bill (JMD $)	Usage (m3)	Rate (JMD $)	Bill (JMD $)	JMD $	%
2500 m3	**2.500,00**			**2.500,00**				
Service Charge		28.449,43	28.449,43		31.294,37	31.294,37	2.844,94	10,00%
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	27,18%
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	90,77%
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	109,85%
>452;<=2.000	1.548	619,60	959.140,80	1548	1430,22	2.213.982,67	1.254.841,87	130,83%
>2.000;<=2.000	500	619,60	309.800,00	500	572,09	286.044,27	-23.755,73	-7,67%
>2.000	0	361,15	0,00	0	572,09	0,00	0,00	
Sub Total			**1.577.449,43**	**Sub Total**		**3.098.327,26**	**1.520.877,83**	**96,41%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-78.872,47		-3,78%	-117.148,33		
K-Factor		20,00%	299.715,39		11,82%	352.379,68		
Total Bill Charges			**1.798.292,35**			**3.333.558,61**	**1.535.266,26**	**85,37%**
5000 m3	**5.000,00**			**5.000,00**				
Service Charge		28.449,43	28.449,43		31.294,37	31.294,37	2.844,94	10,00%
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	27,18%
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	90,77%
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	109,85%
>452;<=2.000	1.548	619,60	959.140,80	1548	1430,22	2.213.982,67	1.254.841,87	130,83%
>2.000;<=2.000	3.000	619,60	1.858.800,00	3000	572,09	1.716.265,64	-142.534,36	-7,67%
>2.000	0	361,15	0,00	0	572,09	0,00	0,00	
Sub Total			**3.126.449,43**	**Sub Total**		**4.528.548,63**	**1.402.099,20**	**44,85%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-156.322,47		-3,78%	-171.225,27		
K-Factor		20,00%	594.025,39		11,82%	515.041,95		
Total Bill Charges			**3.564.152,35**			**4.872.365,30**	**1.308.212,95**	**36,70%**
10000 m3	**10.000,00**			**10.000,00**				
Service Charge		28.449,43	28.449,43		31.294,37	31.294,37	2.844,94	10,00%
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	27,18%
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	90,77%
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	109,85%
>452;<=2.000	1.548	619,60	959.140,80	1548	1430,22	2.213.982,67	1.254.841,87	130,83%
>2.000;<=2.000	7.100	619,60	4.399.160,00	7100	572,09	4.061.828,68	-337.331,32	-7,67%
>2.000	900	361,15	325.035,00	900	572,09	514.879,69	189.844,69	58,41%
Sub Total			**5.991.844,43**	**Sub Total**		**7.388.991,36**	**1.397.146,93**	**23,32%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-299.592,22		-3,78%	-279.379,15		
K-Factor		20,00%	1.138.450,44		11,82%	840.366,49		
Total Bill Charges			**6.830.703**			**7.949.978,70**	**1.119.276,05**	**16,39%**
15000 m3	**15.000,00**			**15.000,00**				
Service Charge		28.449,43	28.449,43		31.294,37	31.294,37	2.844,94	10,00%
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	27,18%
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	90,77%
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	109,85%
>452;<=2.000	1.548	619,60	959.140,80	1548	1430,22	2.213.982,67	1.254.841,87	130,83%
>2.000;<=2.000	7.100	619,60	4.399.160,00	7100	572,09	4.061.828,68	-337.331,32	-7,67%
>2.000	5.900	361,15	2.130.785,00	5900	572,09	3.375.322,42	1.244.537,42	58,41%
Sub Total			**7.797.594,43**	**Sub Total**		**10.249.434,09**	**2.451.839,66**	**31,44%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-389.879,72		-3,78%	-387.533,02		
K-Factor		20,00%	1.481.542,94		11,82%	1.165.691,03		
Total Bill Charges			**8.889.258**			**11.027.592,09**	**2.138.334,44**	**24,06%**

Source: Tariff Structure Model

Table 104: Commercial final bill Impact (%) connection type 4inch /100mm - different cons. blocks– water (2/2)

Commercial >2.000 m3 - 4 inch / 100 mm	Actual Rates (April 2026)			Proposed Rates J$			Change	
	Usage (m3)	Rate (JMD $)	Bill (JMD $)	Usage (m3)	Rate (JMD $)	Bill (JMD $)	JMD $	%
2.0000 m3	**20.000,00**			**20.000,00**				
Service Charge		28.449,43	28.449,43		31.294,37	31.294,37	2.844,94	10,00%
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	27,18%
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	90,77%
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	109,85%
>452;<=2.000	1.548	619,60	959.140,80	1548	1430,22	2.213.982,67	1.254.841,87	130,83%
>2.000;<=2.000	7.100	619,60	4.399.160,00	7100	572,09	4.061.828,68	-337.331,32	-7,67%
>2.000	10.900	361,15	3.936.535,00	10900	572,09	6.235.765,15	2.299.230,15	58,41%
Sub Total			**9.603.344,43**	**Sub Total**		**13.109.876,82**	**3.506.532,39**	**36,51%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-480.167,22		-3,78%	-495.686,90		
K-Factor		20,00%	1.824.635,44		11,82%	1.491.015,57		
Total Bill Charges			**10.947.813**			**14.105.205,49**	**3.157.392,84**	**28,84%**
25000 m3	**25.000,00**			**25.000,00**				
Service Charge		28.449,43	28.449,43		31.294,37	31.294,37	2.844,94	10,00%
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	27,18%
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	90,77%
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	109,85%
>452;<=2.000	1.548	619,60	959.140,80	1548	1430,22	2.213.982,67	1.254.841,87	130,83%
>2.000;<=2.000	7.100	619,60	4.399.160,00	7100	572,09	4.061.828,68	-337.331,32	-7,67%
>2.000	15.900	361,15	5.742.285,00	15900	572,09	9.096.207,88	3.353.922,88	58,41%
Sub Total			**11.409.094,43**	**Sub Total**		**15.970.319,55**	**4.561.225,12**	**39,98%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-570.454,72		-3,78%	-603.840,78		
K-Factor		20,00%	2.167.727,94		11,82%	1.816.340,11		
Total Bill Charges			**13.006.368**			**17.182.818,88**	**4.176.451,23**	**32,11%**
30000 m3	**30.000,00**			**30.000,00**				
Service Charge		28.449,43	28.449,43		31.294,37	31.294,37	2.844,94	10,00%
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	27,18%
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	90,77%
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	109,85%
>452;<=2.000	1.548	619,60	959.140,80	1548	1430,22	2.213.982,67	1.254.841,87	130,83%
>2.000;<=2.000	7.100	619,60	4.399.160,00	7100	572,09	4.061.828,68	-337.331,32	-7,67%
>2.000	20.900	361,15	7.548.035,00	20900	572,09	11.956.650,62	4.408.615,62	58,41%
Sub Total			**13.214.844,43**	**Sub Total**		**18.830.762,28**	**5.615.917,85**	**42,50%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-660.742,22		-3,78%	-711.994,65		
K-Factor		20,00%	2.510.820,44		11,82%	2.141.664,65		
Total Bill Charges			**15.064.923**			**20.260.432,28**	**5.195.509,63**	**34,49%**
35000 m3	**35.000,00**			**35.000,00**				
Service Charge		28.449,43	28.449,43		31.294,37	31.294,37	2.844,94	10,00%
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	27,18%
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	90,77%
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	109,85%
>452;<=2.000	1.548	619,60	959.140,80	1548	1430,22	2.213.982,67	1.254.841,87	130,83%
>2.000;<=2.000	7.100	619,60	4.399.160,00	7100	572,09	4.061.828,68	-337.331,32	-7,67%
>2.000	25.900	361,15	9.353.785,00	25900	572,09	14.817.093,35	5.463.308,35	58,41%
Sub Total			**15.020.594,43**	**Sub Total**		**21.691.205,01**	**6.670.610,58**	**44,41%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-751.029,72		-3,78%	-820.148,53		
K-Factor		20,00%	2.853.912,94		11,82%	2.466.989,19		
Total Bill Charges			**17.123.478**			**23.338.045,67**	**6.214.568,02**	**36,29%**
40000 m3	**40.000,00**			**40.000,00**				
Service Charge		28.449,43	28.449,43		31.294,37	31.294,37	2.844,94	10,00%
<=21	21	619,60	13.011,60	21	788,00	16.548,02	3.536,42	27,18%
>21;<=105	84	619,60	52.046,40	84	1182,00	99.288,09	47.241,69	90,77%
>105;<=452	347	619,60	215.001,20	347	1300,20	451.169,83	236.168,63	109,85%
>452;<=2.000	1.548	619,60	959.140,80	1548	1430,22	2.213.982,67	1.254.841,87	130,83%
>2.000;<=2.000	7.100	619,60	4.399.160,00	7100	572,09	4.061.828,68	-337.331,32	-7,67%
>2.000	30.900	361,15	11.159.535,00	30900	572,09	17.677.536,08	6.518.001,08	58,41%
Sub Total			**16.826.344,43**	**Sub Total**		**24.551.647,74**	**7.725.303,31**	**45,91%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	-841.317,22		-3,78%	-928.302,40		
K-Factor		20,00%	3.197.005,44		11,82%	2.792.313,73		
Total Bill Charges			**19.182.033**			**26.415.659,07**	**7.233.626,42**	**37,71%**

Source: Tariff Structure Model

7.4.1.3. Government Bill Impact

The following tables compare the final government water bill (in JMD, as of April 2026) for various connection types and average consumption levels within each of the new consumption blocks (29 m³, 87 m³, 205 m³, 554 m³, and over 554 m³), under both the current and proposed tariff structures.

Table 105: Government final bill impact (%) connection type 5/8 /15mm-different cons. blocks– water

Government - 5/8 inch / 15 mm	Actual Rates (April 2026)			Proposed Rates J$			Change	
	Usage (m3)	Rate (JMD $)	Bill (JMD $)	Usage (m3)	Rate (JMD $)	Bill (JMD $)	JMD $	%
Below 29m3	**12,00**			**12,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	10,00%
<=14	12,0	290,75	3.489,05	12	562,86	6.754,29	3.265,24	93,59%
Sub Total			**4.761,95**	**Sub Total**		**8.154,48**	**3.392,53**	**71,24%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(238,10)		-3,78%	(308,32)		
K-Factor		20,00%	904,77		11,82%	927,43		
Total Bill Charges			**5.428,63**			**8.773,59**	**3.344,96**	**61,62%**
Below 87m3	**52,00**			**52,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	10,00%
<=14	14	290,75	4.070,56	14	562,86	7.880,01	3.809,44	93,59%
>14;<=27	13	381,63	4.961,21	13	562,86	7.317,15	2.355,94	47,49%
>27;<=29	2	400,30	800,60	2	562,86	1.125,72	325,11	40,61%
>29;<=41	12	400,30	4.803,60	12	675,43	8.105,15	3.301,55	68,73%
>41	11,0	559,89	6.158,81	11	675,43	7.429,72	1.270,91	20,64%
Sub Total			**22.067,69**	**Sub Total**		**33.257,93**	**11.190,24**	**50,71%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(1.103,38)		-3,78%	(1.257,49)		
K-Factor		20,00%	4.192,86		11,82%	3.782,50		
Total Bill Charges			**25.157,17**			**35.782,95**	**10.625,78**	**42,24%**
Below 205m3	**126,00**			**126,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	10,00%
<=14	14	290,75	4.070,56	14	562,86	7.880,01	3.809,44	93,59%
>14;<=27	13	381,63	4.961,21	13	562,86	7.317,15	2.355,94	47,49%
>27;<=29	2	400,30	800,60	2	562,86	1.125,72	325,11	40,61%
>29;<=41	12	400,30	4.803,60	12	675,43	8.105,15	3.301,55	68,73%
>41;<=87	46,0	559,89	25.755,04	46	675,43	31.069,74	5.314,70	20,64%
>87	39,0	559,89	21.835,80	39	810,52	31.610,09	9.774,29	44,76%
Sub Total			**63.499,72**	**Sub Total**		**88.508,04**	**25.008,32**	**39,38%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(3.174,99)		-3,78%	(3.346,51)		
K-Factor		20,00%	12.064,95		11,82%	10.066,22		
Total Bill Charges			**72.389,68**			**95.227,76**	**22.838,08**	**31,55%**
Below 554m3	**304,00**			**304,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	10,00%
<=14	14	290,75	4.070,56	14	562,86	7.880,01	3.809,44	93,59%
>14;<=27	13	381,63	4.961,21	13	562,86	7.317,15	2.355,94	47,49%
>27;<=29	2	400,30	800,60	2	562,86	1.125,72	325,11	40,61%
>29;<=41	12	400,30	4.803,60	12	675,43	8.105,15	3.301,55	68,73%
>41;<=87	46,0	559,89	25.755,04	46	675,43	31.069,74	5.314,70	20,64%
>87; <=205	118,0	559,89	66.067,29	118	810,52	95.640,78	29.573,49	44,76%
>205	99,0	559,89	55.429,33	99	972,62	96.289,19	40.859,86	73,72%
Sub Total			**163.160,54**	**Sub Total**		**248.827,92**	**85.667,38**	**52,50%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(8.158,03)		-3,78%	(9.408,23)		
K-Factor		20,00%	31.000,50		11,82%	28.299,76		
Total Bill Charges			**186.003,02**			**267.719,45**	**81.716,43**	**43,93%**
Over 554m3	**2.677,00**			**2.677,00**				
Service Charge		1.272,90	1.272,90		1.400,19	1.400,19	127,29	10,00%
<=14	14	290,75	4.070,56	14	562,86	7.880,01	3.809,44	93,59%
>14;<=27	13	381,63	4.961,21	13	562,86	7.317,15	2.355,94	47,49%
>27;<=29	2	400,30	800,60	2	562,86	1.125,72	325,11	40,61%
>29;<=41	12	400,30	4.803,60	12	675,43	8.105,15	3.301,55	68,73%
>41;<=87	46,0	559,89	25.755,04	46	675,43	31.069,74	5.314,70	20,64%
>87; <=205	118,0	559,89	66.067,29	118	810,52	95.640,78	29.573,49	44,76%
>205;<=554	349,0	559,89	195.402,40	349	972,62	339.443,71	144.041,31	73,72%
>554	2123,0	559,89	1.188.651,26	2123	1167,14	2.477.841,80	1.289.190,54	108,46%
Sub Total			**1.491.784,87**	**Sub Total**		**2.969.824,24**	**1.478.039,37**	**99,08%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(74.589,24)		-3,78%	(112.289,61)		
K-Factor		20,00%	283.439,13		11,82%	337.764,74		
Total Bill Charges			**1.700.634,75**			**3.195.299,37**	**1.494.664,62**	**87,89%**

Source: Tariff Structure Model

Table 106: Government final bill impact (%) connection type 1inch /25mm different consumption blocks– water

Government - 1 inch / 25 mm	Actual Rates (April 2026)			Proposed Rates J$			Change	
	Usage (m3)	Rate (JMD $)	Bill (JMD $)	Usage (m3)	Rate (JMD $)	Bill (JMD $)	JMD $	%
Below 29m3	**12,00**			**12,00**				
Service Charge		3.636,02	3.636,02		3.999,62	3.999,62	363,60	10,00%
<=14	12,0	290,75	3.489,05	12	562,86	6.754,29	3.265,24	93,59%
Sub Total			**7.125,07**	**Sub Total**		**10.753,91**	**3.628,84**	**50,93%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(356,25)		-3,78%	(406,61)		
K-Factor		20,00%	1.353,76		11,82%	1.223,07		
Total Bill Charges			**8.122,58**			**11.570,37**	**3.447,79**	**42,45%**
Below 87m3	**52,00**			**52,00**				
Service Charge		3.636,02	3.636,02		3.999,62	3.999,62	363,60	10,00%
<=14	14	290,75	4.070,56	14	562,86	7.880,01	3.809,44	93,59%
>14;<=27	13	381,63	4.961,21	13	562,86	7.317,15	2.355,94	47,49%
>27;<=29	2	400,30	800,60	2	562,86	1.125,72	325,11	40,61%
>29;<=41	12	400,30	4.803,60	12	675,43	8.105,15	3.301,55	68,73%
>41	11,0	559,89	6.158,81	11	675,43	7.429,72	1.270,91	20,64%
Sub Total			**24.430,81**	**Sub Total**		**35.857,37**	**11.426,55**	**46,77%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(1.221,54)		-3,78%	(1.355,77)		
K-Factor		20,00%	4.641,85		11,82%	4.078,14		
Total Bill Charges			**27.851,13**			**38.579,73**	**10.728,60**	**38,52%**
Below 205m3	**126,00**			**126,00**				
Service Charge		3.636,02	3.636,02		3.999,62	3.999,62	363,60	10,00%
<=14	14	290,75	4.070,56	14	562,86	7.880,01	3.809,44	93,59%
>14;<=27	13	381,63	4.961,21	13	562,86	7.317,15	2.355,94	47,49%
>27;<=29	2	400,30	800,60	2	562,86	1.125,72	325,11	40,61%
>29;<=41	12	400,30	4.803,60	12	675,43	8.105,15	3.301,55	68,73%
>41;<=87	46,0	559,89	25.755,04	46	675,43	31.069,74	5.314,70	20,64%
>87	39,0	559,89	21.835,80	39	810,52	31.610,09	9.774,29	44,76%
Sub Total			**65.862,84**	**Sub Total**		**91.107,48**	**25.244,64**	**38,33%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(3.293,14)		-3,78%	(3.444,79)		
K-Factor		20,00%	12.513,94		11,82%	10.361,86		
Total Bill Charges			**75.083,64**			**98.024,54**	**22.940,91**	**30,55%**
Below 554m3	**304,00**			**304,00**				
Service Charge		3.636,02	3.636,02		3.999,62	3.999,62	363,60	10,00%
<=14	14	290,75	4.070,56	14	562,86	7.880,01	3.809,44	93,59%
>14;<=27	13	381,63	4.961,21	13	562,86	7.317,15	2.355,94	47,49%
>27;<=29	2	400,30	800,60	2	562,86	1.125,72	325,11	40,61%
>29;<=41	12	400,30	4.803,60	12	675,43	8.105,15	3.301,55	68,73%
>41;<=87	46,0	559,89	25.755,04	46	675,43	31.069,74	5.314,70	20,64%
>87; <=205	118,0	559,89	66.067,29	118	810,52	95.640,78	29.573,49	44,76%
>205	99,0	559,89	55.429,33	99	972,62	96.289,19	40.859,86	73,72%
Sub Total			**165.523,66**	**Sub Total**		**251.427,36**	**85.903,69**	**51,90%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(8.276,18)		-3,78%	(9.506,52)		
K-Factor		20,00%	31.449,50		11,82%	28.595,39		
Total Bill Charges			**188.696,97**			**270.516,23**	**81.819,26**	**43,36%**
Over 554m3	**2.677,00**			**2.677,00**				
Service Charge		3.636,02	3.636,02		3.999,62	3.999,62	363,60	10,00%
<=14	14	290,75	4.070,56	14	562,86	7.880,01	3.809,44	93,59%
>14;<=27	13	381,63	4.961,21	13	562,86	7.317,15	2.355,94	47,49%
>27;<=29	2	400,30	800,60	2	562,86	1.125,72	325,11	40,61%
>29;<=41	12	400,30	4.803,60	12	675,43	8.105,15	3.301,55	68,73%
>41;<=87	46,0	559,89	25.755,04	46	675,43	31.069,74	5.314,70	20,64%
>87; <=205	118,0	559,89	66.067,29	118	810,52	95.640,78	29.573,49	44,76%
>205;<=554	349,0	559,89	195.402,40	349	972,62	339.443,71	144.041,31	73,72%
>554	2123,0	559,89	1.188.651,26	2123	1167,14	2.477.841,80	1.289.190,54	108,46%
Sub Total			**1.494.147,99**	**Sub Total**		**2.972.423,67**	**1.478.275,68**	**98,94%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(74.707,40)		-3,78%	(112.387,90)		
K-Factor		20,00%	283.888,12		11,82%	338.060,38		
Total Bill Charges			**1.703.328,71**			**3.198.096,16**	**1.494.767,45**	**87,76%**

Source: Tariff Structure Model

Table 107: Government final bill impact (%) connection type 2inch /50mm - different consumption blocks– water

Government - 2 inch / 50 mm	Actual Rates (April 2026)			Proposed Rates J$			Change	
	Usage (m3)	Rate (JMD $)	Bill (JMD $)	Usage (m3)	Rate (JMD $)	Bill (JMD $)	JMD $	%
Below 29m3	**12,00**			**12,00**				
Service Charge		9.696,07	9.696,07		10.665,68	10.665,68	969,61	10,00%
<=14	12,0	290,75	3.489,05	12	562,86	6.754,29	3.265,24	93,59%
Sub Total			**13.185,12**	**Sub Total**		**17.419,97**	**4.234,84**	**32,12%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(659,26)		-3,78%	(658,65)		
K-Factor		20,00%	2.505,17		11,82%	1.981,21		
Total Bill Charges			**15.031,04**			**18.742,53**	**3.711,49**	**24,69%**
Below 87m3	**52,00**			**52,00**				
Service Charge		9.696,07	9.696,07		10.665,68	10.665,68	969,61	10,00%
<=14	14	290,75	4.070,56	14	562,86	7.880,01	3.809,44	93,59%
>14;<=27	13	381,63	4.961,21	13	562,86	7.317,15	2.355,94	47,49%
>27;<=29	2	400,30	800,60	2	562,86	1.125,72	325,11	40,61%
>29;<=41	12	400,30	4.803,60	12	675,43	8.105,15	3.301,55	68,73%
>41	11,0	559,89	6.158,81	11	675,43	7.429,72	1.270,91	20,64%
Sub Total			**30.490,86**	**Sub Total**		**42.523,42**	**12.032,56**	**39,46%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(1.524,54)		-3,78%	(1.607,82)		
K-Factor		20,00%	5.793,26		11,82%	4.836,28		
Total Bill Charges			**34.759,58**			**45.751,89**	**10.992,30**	**31,62%**
Below 205m3	**126,00**			**126,00**				
Service Charge		9.696,07	9.696,07		10.665,68	10.665,68	969,61	10,00%
<=14	14	290,75	4.070,56	14	562,86	7.880,01	3.809,44	93,59%
>14;<=27	13	381,63	4.961,21	13	562,86	7.317,15	2.355,94	47,49%
>27;<=29	2	400,30	800,60	2	562,86	1.125,72	325,11	40,61%
>29;<=41	12	400,30	4.803,60	12	675,43	8.105,15	3.301,55	68,73%
>41;<=87	46,0	559,89	25.755,04	46	675,43	31.069,74	5.314,70	20,64%
>87	39,0	559,89	21.835,80	39	810,52	31.610,09	9.774,29	44,76%
Sub Total			**71.922,89**	**Sub Total**		**97.773,53**	**25.850,64**	**35,94%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(3.596,14)		-3,78%	(3.696,84)		
K-Factor		20,00%	13.665,35		11,82%	11.120,00		
Total Bill Charges			**81.992,09**			**105.196,70**	**23.204,60**	**28,30%**
Below 554m3	**304,00**			**304,00**				
Service Charge		9.696,07	9.696,07		10.665,68	10.665,68	969,61	10,00%
<=14	14	290,75	4.070,56	14	562,86	7.880,01	3.809,44	93,59%
>14;<=27	13	381,63	4.961,21	13	562,86	7.317,15	2.355,94	47,49%
>27;<=29	2	400,30	800,60	2	562,86	1.125,72	325,11	40,61%
>29;<=41	12	400,30	4.803,60	12	675,43	8.105,15	3.301,55	68,73%
>41;<=87	46,0	559,89	25.755,04	46	675,43	31.069,74	5.314,70	20,64%
>87; <=205	118,0	559,89	66.067,29	118	810,52	95.640,78	29.573,49	44,76%
>205	99,0	559,89	55.429,33	99	972,62	96.289,19	40.859,86	73,72%
Sub Total			**171.583,71**	**Sub Total**		**258.093,41**	**86.509,70**	**50,42%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(8.579,19)		-3,78%	(9.758,56)		
K-Factor		20,00%	32.600,91		11,82%	29.353,54		
Total Bill Charges			**195.605,43**			**277.688,39**	**82.082,96**	**41,96%**
Over 554m3	**2.677,00**			**2.677,00**				
Service Charge		9.696,07	9.696,07		10.665,68	10.665,68	969,61	10,00%
<=14	14	290,75	4.070,56	14	562,86	7.880,01	3.809,44	93,59%
>14;<=27	13	381,63	4.961,21	13	562,86	7.317,15	2.355,94	47,49%
>27;<=29	2	400,30	800,60	2	562,86	1.125,72	325,11	40,61%
>29;<=41	12	400,30	4.803,60	12	675,43	8.105,15	3.301,55	68,73%
>41;<=87	46,0	559,89	25.755,04	46	675,43	31.069,74	5.314,70	20,64%
>87; <=205	118,0	559,89	66.067,29	118	810,52	95.640,78	29.573,49	44,76%
>205;<=554	349,0	559,89	195.402,40	349	972,62	339.443,71	144.041,31	73,72%
>554	2123,0	559,89	1.188.651,26	2123	1167,14	2.477.841,80	1.289.190,54	108,46%
Sub Total			**1.500.208,04**	**Sub Total**		**2.979.089,73**	**1.478.881,69**	**98,58%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(75.010,40)		-3,78%	(112.639,94)		
K-Factor		20,00%	285.039,53		11,82%	338.818,53		
Total Bill Charges			**1.710.237,17**			**3.205.268,31**	**1.495.031,15**	**87,42%**

Source: Tariff Structure Model

7.4.1.4. Condominium Bill Impact

The following table comparesthe final condominium water bill (in JMD, as of April 2026) for various connection types and an average monthly consumption of 377 m^3 under both the current and proposed tariff structures.

Table 108: Condominium final bill impact (%) for different connection types– water

Condominium	Actual Rates (April 2026)			Proposed Rates J$			Change	
	Usage (m3)	Rate (JMD $)	Bill (JMD $)	Usage (m3)	Rate (JMD $)	Bill (JMD $)	JMD $	%
5/8 inch / 15mm								
Service Charge		1272,90	1272,90		1400,19	1400,19	127,29	10,00%
All Quantities	331	307,35	101.732,85	331	450,29	149.044,71	47.311,86	46,51%
Sub Total			**103.005,75**	**Sub Total**		**150.444,90**	**47.439,15**	**46,05%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(5.150,29)		-3,78%	(5.688,35)		
K-Factor		20,00%	19.571,09		11,82%	17.110,43		
Total Bill Charges			**117.426,56**			**161.866,99**	**44.440,43**	**37,85%**
3/4 inch / 20mm								
Service Charge		2784,35	2784,35		3062,79	3062,79	278,44	10,00%
All Quantities	331	307,35	101.732,85	331	450,29	149.044,71	47.311,86	46,51%
Sub Total			**104.517,20**	**Sub Total**		**152.107,50**	**47.590,30**	**45,53%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(5.225,86)		-3,78%	(5.751,21)		
K-Factor		20,00%	19.858,27		11,82%	17.299,53		
Total Bill Charges			**119.149,61**			**163.655,81**	**44.506,20**	**37,35%**
1 inch / 25mm								
Service Charge		3636,02	3636,02		3999,62	3999,62	363,60	10,00%
All Quantities	331	307,35	101.732,85	331	450,29	149.044,71	47.311,86	46,51%
Sub Total			**105.368,87**	**Sub Total**		**153.044,34**	**47.675,47**	**45,25%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(5.268,44)		-3,78%	(5.786,64)		
K-Factor		20,00%	20.020,09		11,82%	17.406,07		
Total Bill Charges			**120.120,51**			**164.663,77**	**44.543,26**	**37,08%**
1 1/4 inch / 30mm								
Service Charge		6846,23	6846,23		7530,85	7530,85	684,62	10,00%
All Quantities	331	307,35	101.732,85	331	450,29	149.044,71	47.311,86	46,51%
Sub Total			**108.579,08**	**Sub Total**		**156.575,57**	**47.996,49**	**44,20%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(5.428,95)		-3,78%	(5.920,15)		
K-Factor		20,00%	20.630,03		11,82%	17.807,69		
Total Bill Charges			**123.780,15**			**168.463,10**	**44.682,95**	**36,10%**
1 1/2 inch / 40mm								
Service Charge		6846,23	6846,23		7530,85	7530,85	684,62	10,00%
All Quantities	331	307,35	101.732,85	331	450,29	149.044,71	47.311,86	46,51%
Sub Total			**108.579,08**	**Sub Total**		**156.575,57**	**47.996,49**	**44,20%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(5.428,95)		-3,78%	(5.920,15)		
K-Factor		20,00%	20.630,03		11,82%	17.807,69		
Total Bill Charges			**123.780,15**			**168.463,10**	**44.682,95**	**36,10%**
2 inch / 50mm								
Service Charge		9696,07	9696,07		10665,68	10665,68	969,61	10,00%
All Quantities	331	307,35	101.732,85	331	450,29	149.044,71	47.311,86	46,51%
Sub Total			**111.428,92**	**Sub Total**		**159.710,39**	**48.281,47**	**43,33%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(5.571,45)		-3,78%	(6.038,68)		
K-Factor		20,00%	21.171,49		11,82%	18.164,22		
Total Bill Charges			**127.028,97**			**171.835,93**	**44.806,96**	**35,27%**
3 inch / 75mm								
Service Charge		17606,87	17606,87		19367,56	19367,56	1.760,69	10,00%
All Quantities	331	307,35	101.732,85	331	450,29	149.044,71	47.311,86	46,51%
Sub Total			**119.339,72**	**Sub Total**		**168.412,27**	**49.072,55**	**41,12%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(5.966,99)		-3,78%	(6.367,70)		
K-Factor		20,00%	22.674,55		11,82%	19.153,90		
Total Bill Charges			**136.047,28**			**181.198,47**	**45.151,19**	**33,19%**
4 inch / 100mm								
Service Charge		28449,43	28449,43		31294,37	31294,37	2.844,94	10,00%
All Quantities	331	307,35	101.732,85	331	450,29	149.044,71	47.311,86	46,51%
Sub Total			**130.182,28**	**Sub Total**		**180.339,09**	**50.156,81**	**38,53%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(6.509,11)		-3,78%	(6.818,65)		
K-Factor		20,00%	24.734,63		11,82%	20.510,37		
Total Bill Charges			**148.407,80**			**194.030,80**	**45.623,00**	**30,74%**
6 inch / 150mm								
Service Charge		43337,46	43337,46		47671,21	47671,21	4.333,75	10,00%
All Quantities	331	307,35	101.732,85	331	450,29	149.044,71	47.311,86	46,51%
Sub Total			**145.070,31**	**Sub Total**		**196.715,92**	**51.645,61**	**35,60%**
PAM		0,00%	-		0,00%	-		
X-Factor		-5,00%	(7.253,52)		-3,78%	(7.437,87)		
K-Factor		20,00%	27.563,36		11,82%	22.372,94		
Total Bill Charges			**165.380,15**			**211.650,99**	**46.270,84**	**27,98%**

Source: Tariff Structure Model.

7.4.1.5. School Bill Impact

The following table presents the impact on schools. For example, 50% of school customers have a 5/8inch/15mm connection.

Table 109: School final bill Impact (%) for different connection types– water service

School	Actual Rates (April 2026)			Proposed Rates J$			Change	
	Usage (m3)	Rate (JMD $)	Bill (JMD $)	Usage (m3)	Rate (JMD $)	Bill (JMD $)	JMD $	%
5/8 inch / 15mm								
Service Charge		1272,90	1272,90		1400,19	1400,19	127,29	10,00%
All Quantities	267	245,57	65.567,19	267	337,71	90.169,80	24602,61	37,52%
Sub Total			**66.840,09**	**Sub Total**		**91.569,99**	**24602,61**	**36,81%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	(3342,00)		-3,78%	(3462,28)		
K-Factor		20,00%	12699,62		11,82%	10414,46		
Total Bill Charges			**76.197,70**			**98.522,17**	**22324,47**	**29,30%**
3/4 inch / 20mm								
Service Charge		2784,35	2784,35		3062,79	3062,79	278,44	10,00%
All Quantities	267	245,57	65.567,19	267	337,71	90.169,80	24602,61	37,52%
Sub Total			**68.351,54**	**Sub Total**		**93.232,59**	**24881,05**	**36,40%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	(3417,58)		-3,78%	(3525,14)		
K-Factor		20,00%	12986,79		11,82%	10603,55		
Total Bill Charges			**77.920,76**			**100.310,99**	**22390,24**	**28,73%**
1 inch / 25mm								
Service Charge		3636,02	3636,02		3999,62	3999,62	363,60	10,00%
All Quantities	267	245,57	65.567,19	267	337,71	90.169,80	24602,61	37,52%
Sub Total			**69.203,21**	**Sub Total**		**94.169,42**	**24966,21**	**36,08%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	(3460,16)		-3,78%	(3560,56)		
K-Factor		20,00%	13148,61		11,82%	10710,10		
Total Bill Charges			**78.891,66**			**101.318,96**	**22427,30**	**28,43%**
1 1/4 inch / 30mm								
Service Charge		6846,23	6846,23		7530,85	7530,85	684,62	10,00%
All Quantities	267	245,57	65.567,19	267	337,71	90.169,80	24602,61	37,52%
Sub Total			**72.413,42**	**Sub Total**		**97.700,65**	**25.287,23**	**34,92%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	(3620,67)		-3,78%	(3694,08)		
K-Factor		20,00%	13758,55		11,82%	11111,71		
Total Bill Charges			**82.551,30**			**105.118,29**	**22.566,99**	**27,34%**
1 1/2 inch / 40mm								
Service Charge		6846,23	6846,23		7530,85	7530,85	684,62	10,00%
All Quantities	267	245,57	65.567,19	267	337,71	90.169,80	24602,61	37,52%
Sub Total			**72.413,42**	**Sub Total**		**97.700,65**	**25.287,23**	**34,92%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	(3620,67)		-3,78%	(3694,08)		
K-Factor		20,00%	13758,55		11,82%	11111,71		
Total Bill Charges			**82.551,30**			**105.118,29**	**22.566,99**	**27,34%**
2 inch / 50mm								
Service Charge		9696,07	9696,07		10665,68	10665,68	969,61	10,00%
All Quantities	267	245,57	65.567,19	267	337,71	90.169,80	24602,61	37,52%
Sub Total			**75.263,26**	**Sub Total**		**100.835,48**	**25.572,22**	**33,98%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	(3763,16)		-3,78%	(3812,61)		
K-Factor		20,00%	14300,02		11,82%	11468,24		
Total Bill Charges			**85.800,12**			**108.491,11**	**22.691,00**	**26,45%**
3 inch / 75mm								
Service Charge		17606,87	17606,87		19367,56	19367,56	1760,69	10,00%
All Quantities	267	245,57	65.567,19	267	337,71	90.169,80	24602,61	37,52%
Sub Total			**83.174,06**	**Sub Total**		**109.537,36**	**26.363,30**	**31,70%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	(4158,70)		-3,78%	(4141,63)		
K-Factor		20,00%	15803,07		11,82%	12457,93		
Total Bill Charges			**94.818,43**			**117.853,66**	**23.035,23**	**24,29%**
4 inch / 100mm								
Service Charge		28449,43	28449,43		31294,37	31294,37	2844,94	10,00%
All Quantities	267	245,57	65.567,19	267	337,71	90.169,80	24602,61	37,52%
Sub Total			**94.016,62**	**Sub Total**		**121.464,17**	**27.447,55**	**29,19%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	(4700,83)		-3,78%	(4592,58)		
K-Factor		20,00%	17863,16		11,82%	13814,39		
Total Bill Charges			**107.178,95**			**130.685,98**	**23.507,04**	**21,93%**
6 inch / 150mm								
Service Charge		43337,46	43337,46		47671,21	47671,21	4333,75	10,00%
All Quantities	267	245,57	65.567,19	267	337,71	90.169,80	24602,61	37,52%
Sub Total			**108.904,65**	**Sub Total**		**137.841,01**	**28.936,36**	**26,57%**
PAM		0,00%	0,00		0,00%	0,00		
X-Factor		-5,00%	(5445,23)		-3,78%	(5211,79)		
K-Factor		20,00%	20691,88		11,82%	15676,97		
Total Bill Charges			**124.151,30**			**148.306,18**	**24.154,88**	**19,46%**

Source: Tariff Structure Model.

The following table presents the estimated total bill impact of the tariff rate adjustment for the **water and wastewater service** for different categories, service charges and blocks of consumption. This estimation considers the impact of the Service Charge, the Variable Rate, the K – Factor (see section 6.4) and the X – Factor (see section 6.5).

Table 110: Final bill impact (%) by category different consump. blocks & connection types – water and wastewater

		W			WW			W+WW		
Category	Consumption Block / Connection	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Final Bill - proposed tariffs (April /2026 JMD $)	Total Bill Impact (%)	Weighted Average Change (%)
Residential 5/8 inch / 15mm	For up to 7m3 (3m3 W / 4m3 S)	36%	1.990,97	9%	38%	2.626	14%	3.110	16%	
	For the next 8m3 (12m3 W / 11m3 S)	34%	4.365	25%	37%	4.472	25%	7.331	30%	
	For the next 12m3 (21m3 W / 20m3 S)	20%	7.272	28%	19%	7.662	29%	13.427	32%	26,83%
	For the next 36m3 (38m3 W / 37m3 S)	8%	14.684	40%	5%	17.482	42%	30.660	44%	
99%	Over 63m3 (133m3 W / 161m3 S)	1%	88.263	46%	1%	133.438	49%	220.195	48%	

		W			WW			W+WW		
Category	Consumption Block / Connection	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Final Bill - proposed tariffs (April /2026 JMD $)	Total Bill Impact (%)	Weighted Average Change (%)
Commercial - 5/8 inch / 15mm	For up to 21m3 (5m3 / 5m3)	74%	5.746	15%	73%	4.444	14%	8.683	16,9%	
	For the next 84m3 (44m3 / 47m3)	19%	44.746	47%	19%	38.228	39%	81.467	44,1%	
	For the next 347m3 (201m3 / 204m3)	5%	243.646	81%	6%	205.237	75%	447.376	78,4%	26,24%
	For the next 1548m3 (863m3 / 852m3)	1%	1.163.992	103%	2%	954.942	97%	2.117.427	100,3%	
91%										
Commercial - 1 inch / 25mm	For up to 21m3 (5m3 / 5m3)	74%	8.542	11,3%	73%	7.241	9,8%	11.480	13,4%	
	For the next 84m3 (44m3 / 47m3)	19%	47.542	43,6%	19%	41.025	35,6%	84.264	42,3%	
	For the next 347m3 (201m3 / 204m3)	5%	246.443	79,0%	6%	208.034	73,4%	450.173	77,6%	23,26%
	For the next 1548m3 (863m3 / 852m3)	1%	1.166.789	102,2%	2%	957.738	96,6%	2.120.224	100,0%	
5%										
Commercial - 2 inch / 50mm	For up to 21m3 (5m3 / 5m3)	74%	15.715	7,7%	73%	14.413	6,8%	18.652	9,5%	
	For the next 84m3 (44m3 / 47m3)	19%	54.715	36,7%	19%	48.197	29,7%	91.436	38,3%	
	For the next 347m3 (201m3 / 204m3)	5%	253.615	75,4%	6%	215.206	69,6%	457.345	75,6%	19,49%
	For the next 1548m3 (863m3 / 852m3)	1%	1.173.961	101,1%	2%	964.911	95,3%	2.127.396	99,4%	
2%										

		W			WW			W+WW		
Category	Consumption Block / Connection	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Final Bill - proposed tariffs (April /2026 JMD $)	Total Bill Impact (%)	Weighted Average Change (%)
Commercial >2000 - 4 inch / 100mm	2500m3	7%	3.333.559	85,4%	7%	3.845.031	85,6%	7.144.920	86,2%	
	5000m3	20%	4.872.365	36,7%	19%	5.622.348	36,7%	10.461.043	36,9%	
	10000m3	16%	7.949.979	16,4%	20%	9.176.982	16,4%	17.093.291	16,4%	
	15000m3	17%	11.027.592	24,1%	14%	12.731.617	24,1%	23.725.538	24,1%	
	20000m3	11%	14.105.205	28,8%	12%	16.286.251	28,8%	30.357.786	28,9%	33,44%
	25000m3	8%	17.182.819	32,1%	4%	19.840.885	32,1%	36.990.033	32,1%	
	30000m3	10%	20.260.432	34,5%	11%	23.395.519	34,5%	43.622.281	34,5%	
	35000m3	8%	23.338.046	36,3%	11%	26.950.153	36,3%	50.254.528	36,3%	
47%	40000m3	3%	26.415.659	37,7%	3%	30.504.787	37,7%	56.886.776	37,7%	

		W			WW			W+WW		
Category	Consumption Block / Connection	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Final Bill - proposed tariffs (April /2026 JMD $)	Total Bill Impact (%)	Weighted Average Change (%)
Government - 5/8 inch / 15mm	For up to 29m3 (12m3 W / 9m3 S)	52%	8.774	61,6%	27%	10.598	39,6%	15.069	70%	
	For the next 58m3 (53m3 W/ 53m3 S)	23%	35.783	42,2%	28%	20.951	88,1%	55.228	58%	
	For the next 118m3 (128m3 W / 136m3 S)	14%	95.228	31,5%	26%	38.242	23,2%	131.963	29%	59,96%
	For the next 3498m3 (310m3 W / 336m3 S)	7%	267.719	43,9%	15%	97.466	13,9%	363.679	35%	
84%	Over 554m3 (2734m3 W/2953m3 S)	4%	3.195.299	87,9%	4%	6.882.639	91,9%	10.076.432	91%	
Government - 1 inch / 25mm	For up to 29m3 (12m3 W / 9m3 S)	52%	11.570	42,4%	27%	10.598	39,6%	17.865	54,4%	
	For the next 58m3 (53m3 W/ 53m3 S)	23%	38.580	38,5%	28%	23.748	71,7%	58.025	54,6%	
	For the next 118m3 (128m3 W / 136m3 S)	14%	98.025	30,6%	26%	41.039	21,6%	134.760	28,7%	50,92%
	For the next 3498m3 (310m3 W / 336m3 S)	7%	270.516	43,4%	15%	100.263	13,6%	366.476	34,3%	
7%	Over 554m3 (2734m3 W/2953m3 S)	4%	3.198.096	87,8%	4%	6.885.436	91,8%	10.079.229	90,6%	
Government - 2 inch / 50mm	For up to 29m3 (12m3 W / 9m3 S)	52%	18.743	24,7%	27%	17.771	22,6%	25.038	35,5%	
	For the next 58m3 (53m3 W/ 53m3 S)	23%	45.752	31,6%	28%	30.920	49,1%	65.197	46,7%	
	For the next 118m3 (128m3 W / 136m3 S)	14%	105.197	28,3%	26%	48.211	18,6%	141.932	27,2%	38,95%
	For the next 3498m3 (310m3 W / 336m3 S)	7%	277.688	42,0%	15%	107.435	12,9%	373.648	33,6%	
5%	Over 554m3 (2734m3 W/2953m3 S)	4%	3.205.268	87,4%	4%	6.892.608	91,7%	10.086.401	90,5%	

		W			WW			W+WW		
Category	Consumption Block / Connection	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Client participation (%)	Final Bill (April /2026 JMD $)	Total Bill Impact (%)	Final Bill - proposed tariffs (April /2026 JMD $)	Total Bill Impact (%)	Weighted Average Change (%)
Condominium	5/8 inch / 15mm	26%	161.867	38%	26%	168.257	38%	328.617	38,05%	
	3/4 inch / 20mm	0%	163.656	37%	0%	170.046	37%	330.406	37,81%	
	1 inch / 25mm	12%	164.664	37%	12%	171.054	37%	331.414	37,67%	
	1 1/4 inch / 30mm	0%	168.463	36%	0%	174.853	36%	335.213	37,16%	
	1 1/2 inch / 15mm	2%	168.463	36%	2%	174.853	36%	335.213	37,16%	36,51%
	2 inch / 50mm	32%	171.836	35%	32%	178.226	35%	338.586	36,73%	
	3 inch / 75mm	4%	181.198	33%	4%	187.588	33%	347.949	35,57%	
	4 inch / 100mm	24%	194.031	31%	24%	200.421	31%	360.781	34,11%	
	6 inch / 150mm	0%	211.651	28%	0%	218.041	28%	378.401	32,31%	
School	5/8 inch / 15mm	50%	98.522	29%	50%	107.684	29%	204.700	29,57%	
	3/4 inch / 20mm	0%	100.311	29%	0%	109.473	29%	206.488	29,29%	
	1 inch / 25mm	28%	101.319	28%	28%	110.481	28%	207.496	29,13%	
	1 1/4 inch / 30mm	0%	105.118	27%	0%	114.280	27%	211.296	28,57%	
	1 1/2 inch / 15mm	2%	105.118	27%	2%	114.280	27%	211.296	28,57%	29,06%
	2 inch / 50mm	17%	108.491	26%	17%	117.653	26%	214.668	28,09%	
	3 inch / 75mm	1%	117.854	24%	1%	127.015	24%	224.031	26,85%	
	4 inch / 100mm	2%	130.686	22%	2%	139.848	22%	236.863	25,35%	
	6 inch / 150mm	0%	148.306	19%	0%	157.468	19%	254.484	23,57%	

Source: Tariff Structure Model

The residential category water and wastewater bill was simulated for the average monthly consumption within each new block (7m^3; 15m^3; 27m^3; 63m^3 and over 63 m^3). The Service Charge was always kept in the 5/8 inch / 15mm diameter connection [32]. Customers' distribution in each consumption block was obtained from section 7.2.2.1. The final bill in JMD for April 2026 results from adding to the service charge as per connection type, the water volumetric rate charge, and the sewerage volumetric rate charge. The weighted average change is the average between the customer's share in water and the total billed water and sewerage impact.

[32] The 5/8 inch / 15mm diameter connection holds 99% of residential customer's connections according to NWC's database information

The rest of the categories followed the procedure like the one described above.

It is noteworthy that the final water and wastewater bill (in JMD$ from April 2026) for the first consumption block of the residential category (up to 7m^3) is **JMD 3,110** which represents **3.42%**[33] of total household income. For the second consumption block (up to 15m^3) the final bill is **JMD 7,331** representing **8.06%** of the household income. The first percentage remains within the 5% affordability benchmark considered in this study, while the second is above this reference level).

Additionally, the restriction on reducing the rate of the last band in the commercial category to avoid the defection of large customers is worth mentioning.

Also, in the previous determination notice the NWC indicated that the proposed rates for schools are subsidized rates, as they are below the average costs of providing water and wastewater services. The OUR also agreed that tariffs for schools should be kept below the overall average tariff due to the strong public good component associated with these services. The overall average tariff of the cost-of-service study is 385 JMD/m3 (including the effect of K-factor and X-factor[34]).

The table above shows that, on average, the total impact on residential water and wastewater bills would be **26.83%.** For commercial customers consuming less than 2,000 m^3, the average increase would be **23%,** while commercial customers with consumption exceeding 2,000 m^3 would face an average increase of **33.44%.**

The projected impact for government customers is **49.94%,** for condominiums **36.51%,** and for schools **29.06%.**

Lastly, the table below presents the revenues to be billed by customer category and service under the proposed tariff structure, which is designed to fully meet the revenue requirement established in the cost of service. These figures are previous to the application of X factor and K factor.

Table 111: Volumetric revenue to be billed - by category and service

	Service charge	Volumetric rate		Service charge + Volumetric rate
Category	Revenue (JMD $)	W	WW	W+WW
		Variable Revenue (JMD $)	Variable Revenue (JMD $)	Proposed Total Billing (JMD $)
Residential	6.413.329.785	18.827.483.837	6.034.427.892	31.275.241.513
Commercial	683.547.207	16.867.240.923	5.270.441.711	22.821.229.841
Government	105.443.591	5.515.951.771	1.817.768.047	7.439.163.409
Condominium	40.238.887	470.862.001	238.034.788	749.135.676
School	46.707.671	903.362.771	173.331.917	1.123.402.360
Total	**7.289.267.141**	**42.584.901.303**	**13.534.004.354**	**63.408.172.799**

Source: Tariff Structure Model.

[33] The following calculations were based on the information published in the Jamaica Survey Living Condition 2019.

	Water as % of Total Household Consumption (Study)	Mean water payment (JDM/Month Dec 2023)	Household Income (Dec/2023)	Household Income (March/2026)	Water as % of Total Household Income
Poorest	4,3%	3.555,00	82.674,42	90.966,66	2,19%
4th quintile	2,8%	4.348,00	155.285,71	170.860,87	2,55%

[34] Calculated as the average tariff 447.68 JMD/m3 and applying first the X factor (-5.62%) and over the result, the K-factor of 21.27%.

[redacted]

7.4.2. Rate Schedule

Once all the changes proposed in this report have been applied, the final tariffs applicable to customers have been calculated. The table of the service charges and the volumetric rates by service proposed are found below:

Table 112: Service Charge proposed

Service Charge	Proposed (JMD $)
5/8 inch – 15mm	1,400.19
¾ inch – 20mm	3,062.79
1 inch – 25mm	3,999.62
1 ¼ inch – 30mm	7,530.85
1 ½ inch – 40mm	7,530.85
2 inch – 50mm	10,665.68
3-inch -75 mm	19,367.56
4 inch – 100 mm	31,294.37
6 inch – 150 mm	47,671.21

Source: Tariff Structure Model

Table 113: Tariff Schedule Proposed – Water and Wastewater Service

	Water	Wastewater
Residential	(JMD $)	(JMD $)
<=7	225.14	260.04
>7<=15	270.17	312.05
>15<=27	405.26	468.07
>27<=63	607.89	702.11
>63	911.83	1,053.16
Commercial	(JMD $)	(JMD $)
<=21	788.00	910.14
>21<=105	1,182.00	1,365.21
>105<=452	1,300.20	1,501.73
>452<=2.000	1,430.22	1,651.90
>2.000	572.09	660.76
Government	(JMD $)	(JMD $)
<=29	562.86	650.10
>29<=87	675.43	780.12
>87<=205	810.52	936.14
>205<=554	972.62	1,123.37
>554;<=999,999	1,167.14	1,348.05
Condominiums	(JMD $)	(JMD $)
	450.29	520.08
Schools	(JMD $)	(JMD $)
	337.71	390.06

Source: Tariff Structure Model

8. Projected Financial Performance

This section presents the financial results that NWC is expected to achieve under the tariff proposal outlined in section 0. To estimate these results, we developed projections for NWC's financial statements using a comprehensive financial model. This model incorporates the cost-of-service assumptions related to demand forecasts, projected revenues, investments, and estimated costs, taking into account the anticipated efficiency gains included in the projection parameters.

Next, we present the key performance indicators (KPIs) related to both financial performance and operational aspects of the utility. The analysis focuses on the most relevant and critical KPIs for NWC's operations.

8.1. Projected Financial Statements

The statements are available in sheet Income Statement, Balance Sheet, Cash Flow from file: Tariff & Financial Model.xlsm.

Table 114: NWC Profit and Losses Statement (in JMD)

			2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Concept	Category	Unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
	Total Water Tariff Revenues	JMD	[redacted]	43,016,991,564	43,472,247,041	43,934,847,064	44,411,006,214	44,898,156,559
	Total Sewerage Tariff Revenues	JMD	[redacted]	13,864,140,626	14,213,699,206	14,587,763,585	14,987,592,244	15,411,482,863
	Total Service Charges Revenues	JMD	[redacted]	7,474,601,133	7,664,320,029	7,858,390,437	8,057,142,997	8,260,752,673
Total Revenues	Total	JMD	39,948,798,446	66,512,682,931	67,540,548,696	68,605,829,658	69,716,591,074	70,868,600,394
	Total Water O&M	JMD	- 21,760,892,272	- 21,820,635,381	- 22,291,404,979	- 22,398,292,791	- 22,507,140,683	- 22,617,772,537
	Total Sewerage OPEX	JMD	- 4,704,276,465	- 4,655,485,809	- 4,675,176,759	- 4,695,132,908	- 4,715,431,635	- 4,736,055,149
	Total W + WW O&M OPEX	JMD	- 350,295,500	- 350,153,596	- 350,587,075	- 351,029,875	- 351,484,265	- 351,950,097
	Total W + WW ADM OPEX	JMD	- 14,722,155,194	- 14,126,698,479	- 14,518,790,528	- 14,880,018,875	- 15,236,317,791	- 15,606,390,567
	Total Customer Operations	JMD	- 6,270,899,801	- 6,285,467,210	- 6,345,027,076	- 6,406,577,929	- 6,470,156,278	- 6,536,009,513
Total OPEX	Total	JMD	- 47,808,519,232	- 47,238,440,476	- 48,180,986,417	- 48,731,052,379	- 49,280,530,652	- 49,848,177,863
				-	-	-	-	-
Provision for bad debt	Bad Debt	JMD	- 2,796,415,891	- 4,438,572,096	- 4,512,367,151	- 4,768,062,180	- 5,001,430,705	- 5,177,849,995
Operating Profit (EBITDA)	Operation (loss)/profit	JMD	- 10,656,136,676	14,835,670,360	14,847,195,128	15,106,715,100	15,434,629,717	15,842,572,536
Other Operating Income	K-Factor	JMD	6,752,705,570	7,319,321,268	7,432,431,722	7,549,659,493	7,671,892,115	7,798,663,822
(Regulatory Adjustments)	X-Factor	JMD	- 1,757,294,507	- 2,433,302,339	- 2,470,905,816	- 2,509,878,093	- 2,550,514,228	- 2,592,659,377
Total Other Operating Income		JMD	4,995,411,063	4,886,018,929	4,961,525,905	5,039,781,400	5,121,377,888	5,206,004,445
Depreciation & Amortization	Depreciation of the period	JMD	- 3,622,726,656	- 2,755,628,809	- 3,202,020,436	- 3,627,980,765	- 3,881,139,474	- 4,084,188,432
	Depreciation of the period (assets k factor)	JMD		- 397,736,695	- 726,605,189	- 968,576,139	- 1,166,562,786	- 1,341,625,027
	Lease	JMD		-	-	-	- 336,000,000	- 336,000,000
Profit Before Tax	EBIT	JMD	- 9,283,452,270	16,568,323,783	15,880,095,409	15,549,939,597	15,172,305,345	15,286,763,522
	Financial expenses	JMD	- 2,043,825,733	- 4,712,510,193	- 7,042,495,791	- 9,969,981,254	- 11,722,851,159	- 13,433,122,823
	Forex loss or gain	JMD	- 42,019,606	- 66,781,504	- 83,367,415	- 65,628,415	- 47,526,298	- 29,332,361
Earnings Before Taxes	EBT	JMD	- 11,369,297,609	11,789,032,087	8,754,232,204	5,514,329,928	3,401,927,888	1,824,308,337
	Taxes	JMD	- 636,491,097	- 3,929,638,066	- 2,918,048,220	- 1,838,091,595	- 1,133,964,623	- 608,096,698
Net income		JMD	- 10,732,806,511	7,859,394,022	5,836,183,983	3,676,238,333	2,267,963,265	1,216,211,639

Source: Tariff & Financial Model

Table 115: NWC Balance Sheet (in JMD)

			2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
		unit	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
	Assets							
Current Assets	Cash and equivalents	JMD	5,691,805,941	3,978,023,233	4,301,157,379	4,162,835,001	4,267,881,947	4,269,464,643
	Net accounts receivable	JMD	4,590,149,488	9,850,113,369	9,836,574,557	9,343,721,221	8,386,094,017	7,011,974,264
	Inventories	JMD	2,860,141,279	2,501,141,345	2,451,718,079	2,420,024,416	2,401,544,898	2,393,531,513
	Short-term investments	JMD	5,343,455,609	4,471,879,846	4,540,986,850	4,612,609,407	4,687,289,775	4,764,743,383
	Other current assets	JMD	6,096,255,313	6,096,255,313	6,096,255,313	6,096,255,313	6,096,255,313	6,096,255,313
	Total current assets	**JMD**	**24,581,807,630**	**26,897,413,106**	**27,226,692,178**	**26,635,445,358**	**25,839,065,950**	**24,535,969,116**
Non-Current Assets	Gross property, plant and equipment	JMD	151,622,428,774	171,153,559,098	192,726,285,389	209,353,309,688	224,285,279,921	239,694,314,334
	Accumulated depreciation	JMD	- 95,472,159,175	- 64,495,589,902	- 67,595,417,145	- 71,138,764,823	- 74,994,002,709	- 79,064,030,261
	Net property, plant and equipment	JMD	56,150,269,599	106,657,969,196	125,130,868,244	138,214,544,865	149,291,277,212	160,630,284,072
	Gross property, plant and equipment (K factor)	JMD		13,257,889,850	24,220,172,951	32,285,871,294	38,885,426,203	44,720,834,221
	Accumulated depreciation (K factor)	JMD		- 397,736,695	- 1,124,341,884	- 2,092,918,023	- 3,259,480,809	- 4,601,105,836
	Net property, plant and equipment (K factor)	JMD		12,860,153,154	23,095,831,067	30,192,953,272	35,625,945,394	40,119,728,386
	Right of use assets	JMD	135,126,742	135,126,742	135,126,742	135,126,742	7,598,126,742	7,262,126,742
	Restricted cash	JMD	3,027,655,879	2,084,655,879	941,655,879	1,483,655,879	2,025,655,879	2,567,655,879
	other non-current assets	JMD	25,438,663,852	24,688,663,852	24,688,663,852	24,688,663,852	24,688,663,852	24,688,663,852
	Total non-current assets	**JMD**	**84,751,716,072**	**146,426,568,823**	**173,992,145,783**	**194,714,944,609**	**219,229,669,079**	**235,268,458,931**
	Total assets	**JMD**	**109,333,523,702**	**173,323,981,929**	**201,218,837,961**	**221,350,389,967**	**245,068,735,028**	**259,804,428,047**
	Liabilities							
Current liabilities	Accounts payable	JMD	31,035,170,290	31,060,892,368	30,360,621,578	29,372,141,160	27,003,030,494	24,582,663,056
	Short term + Current maturities long-term loans	JMD	4,451,192,492	4,320,961,692	6,069,259,899	7,585,646,057	8,982,882,263	10,221,772,571
	Taxes payable	JMD	2,654,373,113	2,654,373,113	2,654,373,113	2,654,373,113	2,654,373,113	2,654,373,113
	Other current liabilities	JMD	2,830,591,590	2,830,591,590	2,830,591,590	2,830,591,590	2,830,591,590	2,830,591,590
	Total current liabilities	**JMD**	**40,971,327,485**	**40,866,818,763**	**41,914,846,180**	**42,442,751,920**	**41,470,877,461**	**40,289,400,330**
Non-current liabilities	Long-term debt	JMD	26,978,014,939	52,076,803,536	73,013,941,297	88,863,487,875	103,465,453,291	118,154,120,961
	Employee benefits obligations	JMD	27,068,411,000	27,136,637,963	27,210,144,833	27,288,006,189	27,372,297,029	27,456,587,868
	Lease liabilities	JMD	159,298,383	159,298,383	159,298,383	159,298,383	7,895,298,383	7,823,298,383
	Deferred income	JMD	14,212,995,700	14,212,995,700	14,212,995,700	14,212,995,700	14,212,995,700	14,212,995,700
	Total non-current liabilities	**JMD**	**68,418,720,022**	**93,585,735,582**	**114,596,380,213**	**130,523,788,147**	**152,946,044,402**	**167,647,002,913**
	Total liabilities	**JMD**	**109,390,047,507**	**134,452,554,345**	**156,511,226,394**	**172,966,540,067**	**194,416,921,863**	**207,936,403,242**
	Shareholders equity							
	Shareholders capital	JMD	38,154,489,165	38,154,489,165	38,154,489,165	38,154,489,165	38,154,489,165	38,154,489,165
	Net income	JMD		7,859,394,022	5,836,183,983	3,676,238,333	2,267,963,265	1,216,211,639
	Retained earnings/(loses)	JMD	- 38,211,012,970	- 38,211,012,970	- 30,351,618,948	- 24,515,434,965	- 20,839,196,632	- 18,571,233,367
	Asset revaluation Reserve	JMD		30,086,964,118	29,136,383,745	28,215,836,413	27,324,373,246	26,461,075,347
	Retained Earnings Assset Revaluation	JMD		981,593,249	1,932,173,623	2,852,720,954	3,744,184,121	4,607,482,021
	Total earnings	**JMD**	**- 56,523,805**	**38,871,427,584**	**44,707,611,567**	**48,383,849,900**	**50,651,813,166**	**51,868,024,805**
	Total earnings and liabilities	**JMD**	**109,333,523,702**	**173,323,981,929**	**201,218,837,961**	**221,350,389,967**	**245,068,735,028**	**259,804,428,047**

Source: Tariff & Financial Model

Table 116: NWC Cash Flow (in JMD)

		2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
		Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
Operational Cash Flow							
Net income/loss	[JMD]		7,859,394,022	5,836,183,983	3,676,238,333	2,267,963,265	1,216,211,639
Depreciation and amortization	[JMD]		3,153,365,505	3,928,625,624	4,596,556,903	5,383,702,260	5,761,813,459
Changes in accounts receivable	[JMD]	-	5,259,963,881	13,538,812	492,853,336	957,627,204	1,374,119,753
Changes in inventories and anticipated payments	[JMD]		358,999,934	49,423,266	31,693,663	18,479,518	8,013,385
Changes in accounts payable	[JMD]		25,722,078	- 700,270,789	- 988,480,418	- 2,369,110,665	- 2,420,367,438
Pension obligation	[JMD]		68,226,963	73,506,870	77,861,356	84,290,840	84,290,840
Taxes	[JMD]		750,000,000	-	-	-	-
Cash flow for operational activities	**[JMD]**	**1,962,104,645**	**6,955,744,621**	**9,201,007,766**	**7,886,723,174**	**6,342,952,421**	**6,024,081,637**
Cash flow from investing activities							
Net, long term & short term investments	[JMD]		871,575,763	- 69,107,003	- 71,622,558	- 74,680,367	- 77,453,608
Purchase of property, plant and equipment	[JMD]	-	22,592,507,734	- 22,401,524,672	- 17,680,233,525	- 16,460,434,607	- 17,100,820,319
Purchase of property, plant and equipment (K factor	[JMD]	-	12,860,153,154	- 10,235,677,912	- 7,097,122,205	- 5,432,992,122	- 4,493,782,992
Restricted cash	[JMD]		943,000,000	1,143,000,000	- 542,000,000	- 542,000,000	- 542,000,000
Right of use	[JMD]		-	-	-	- 7,463,000,000	336,000,000
Cash flow from investing activities	**[JMD]**	**- 10,022,249,713**	**- 33,638,085,126**	**- 31,563,309,588**	**- 25,390,978,287**	**- 29,973,107,097**	**- 21,878,056,919**
Net cash used before financing activities c/fwd		**- 8,060,145,068**	**- 26,682,340,505**	**- 22,362,301,822**	**- 17,504,255,113**	**- 23,630,154,676**	**- 15,853,975,282**
Cash flows from Financing Activities							
New debt	[JMD]		24,968,557,797	22,685,435,969	17,365,932,735	15,999,201,622	15,927,557,978
Cash flows from financing activities	**[JMD]**	**6,377,271,834**	**24,968,557,797**	**22,685,435,969**	**17,365,932,735**	**23,735,201,622**	**15,855,557,978**
Net cash flow	**[JMD]**	- 1,682,873,234	- 1,713,782,708	323,134,146	- 138,322,378	105,046,946	1,582,696
Cash, start of period	**[JMD]**	7,374,679,175	5,691,805,941	3,978,023,233	4,301,157,379	4,162,835,001	4,267,881,947
Cash, end of period	**[JMD]**	5,691,805,941	3,978,023,233	4,301,157,379	4,162,835,001	4,267,881,947	4,269,464,643
Minimum liquidity	**[JMD]**		3,936,536,706	4,015,082,201	4,060,921,032	4,106,710,888	4,154,014,822
Requested liquidity	**[JMD]**		-	-	-	-	-

Source: Tariff & Financial Model

8.2. KPIs

This section presents a detailed analysis of the key financial and operational performance indicators (KPIs) for NWC over the five-year projection period (2026–2031). The analysis compares NWC's projected performance to typical benchmark ranges based on international best practices, utility regulatory guidelines, and global utility performance databases (including World Bank, IBNET, and sector regulators).

8.2.1. Financial KPI´s Definitions and Results

The table below summarizes NWC's projected performance alongside benchmark ranges:

Table 117: Projected NWC Financial KPIs

			2026-2027	2027-2028	2028-2029	2029-2030	2030-2031	Trend
Description	Formula	Unit	Year 1	Year 2	Year 3	Year 4	Year 5	2026/27–2030/31
Debt Service Coverage Ratio	EBITDA (P&L)/(Financial expense (P&L) + Debt Repayment)	ratio	3.3	2.1	1.5	1.2	1.1	3.3x → 1.1x; declining significantly, but remaining above 1.0x throughout the period.
Current Ratio	Current Assets (BS)/ Current Liabilities (BS)	ratio	0.66	0.65	0.63	0.62	0.61	0.66x → 0.61x; steadily declining and remaining below 1.0x throughout the period.
Quick Ratio (Acid-Test)	(Current Assets (BS) - Inventories (BS))/ Current Liabilities (BS)	ratio	0.60	0.59	0.57	0.57	0.55	0.60x → 0.55x; gradually declining and remaining below 1.0x throughout the period.
Cash Operating Margin	Cash flow operating activities (CF)/(Revenues (P&L)+K factor (P&L)+X factor (P&L))	%	9.7%	12.7%	10.7%	8.5%	7.9%	9.7% → 7.9%; peaks at 12.7% in Year 2, followed by a progressive decline.
Net Profit Margin	Net Profit (P&L) / (Revenues (P&L)+K factor (P&L)+X factor (P&L)	%	11.0%	8.0%	5.0%	3.0%	1.6%	11.0% → 1.6%; steadily declining, indicating reduced profitability.
Revenue	(Revenues (P&L)+K factor (P&L)+X factor (P&L))	B JMD	71	73	74	75	76	JMD 71bn → JMD 76bn; moderate growth throughout the period.
Return on Assets (ROA)	Net Income (P&L)/Total Assets (BS)	%	4.5%	2.9%	1.7%	0.9%	0.5%	4.5% → 0.5%; progressively declining, indicating reduced asset profitability.
Return on Equity (ROE)	Net Income (P&L)/Total Equity (BS)	%	20.2%	13.1%	7.6%	4.5%	2.3%	20.2% → 2.3%; steadily declining, indicating reduced returns to equity.
Net Free Cash Flow	Net cash used before financing activities	B JMD	- 26.68	- 22.36	- 17.50	- 23.63	- 15.85	JMD -26.68bn → JMD -15.85bn; improving overall but remaining negative and volatile.
Capital Expenditure Ratio	Increase in Property Plant and Equipment (BS)/ Depreciation (P&L)	ratio	11.24	8.31	5.39	4.34	3.98	11.24x → 3.98x; progressively declining, but remaining above 1.0x.
Operating Margin	(Operating Profit (P&L)+K factor (P&L) + X factor (P&L))/ (Total Revenue (P&L)+K factor (P&L) + X factor (P&L))	%	27.6%	27.3%	27.4%	27.5%	27.7%	27.6% → 27.7%; broadly stable throughout the projection period.
Days Receivable Outstanding	(Net Accounts Receivables (BS) / (Total Revenue (P&L)+K factor (P&L) + X factor (P&L)))* 365	days	50	50	46	41	34	50 → 34 days; progressively declining, indicating improved receivables collection efficiency.
Days Payable Outstanding	(Accounts payable (BS) / Total OPEX (P&L)) *365	days	240	230	220	200	180	240 → 180 days; gradually declining, but remaining relatively high.
Working Capital	Current Assets (BS) - Current Liabilities (BS)	millon JMD	- 13,969	- 14,688	- 15,807	- 15,632	- 15,753	JMD -13.97bn → JMD -15.75bn; deteriorating overall, with a temporary improvement in Year 4, and remaining negative throughout.
Leverage	Total Liabilities (BS) / (Total Liabilities (BS) + Equity (BS))	%	77.6%	77.8%	78.1%	79.3%	80.0%	77.6% → 80.0%; gradually increasing, indicating persistently high leverage.

Source: Tariff & Financial Model

8.2.2. Operational KPI´s Definitions and Results

The table below summarizes NWC's projected operational performance alongside benchmark ranges

Table 118: Projected NWC Operational KPIs

			2026-2027	2027-2028	2028-2029	2029-2030	2030-2031	Trend
Description	Formula	Unit	Year 1	Year 2	Year 3	Year 4	Year 5	2026/27–2030/31
NRW	Water Losses / Water Production	%	72.0%	69.7%	67.5%	65.3%	63.3%	72.0% → 63.3%; progressively declining, indicating improved water loss management.
Water coverage	Population with water/total population	%	75.8%	76.7%	77.6%	78.6%	79.5%	75.8% → 79.5%; steadily increasing, reflecting expanded access to water services.
Sewer coverage	Population with sewer/total population	%	22.0%	22.7%	23.4%	24.2%	25.0%	22.0% → 25.0%; gradually increasing, reflecting expanded access to sewerage services.
Accounts Water	Number of active accounts	nº	401,187	411,865	422,795	433,979	445,432	401,187 → 445,432; steadily increasing, indicating growth in the water customer base.
Accounts Sewer	Number of active accounts	nº	126,529	132,873	139,633	146,849	154,555	126,529 → 154,555; steadily increasing, reflecting expansion of the sewerage customer base.
Collection Rate	Collected Revenues/Billed Revenues	%	93.4%	93.8%	94.2%	94.6%	95.0%	93.4% → 95.0%; progressively improving, indicating greater revenue collection efficiency.
Labour productivity	Customers/ Employees	ratio	236	251	266	283	300	236 → 300 customers/employee; steadily increasing, indicating improved workforce

Source: Tariff & Financial Model

Overall, operational performance is projected to improve over the tariff period, with further progress needed in reducing NRW and expanding sewer coverage.

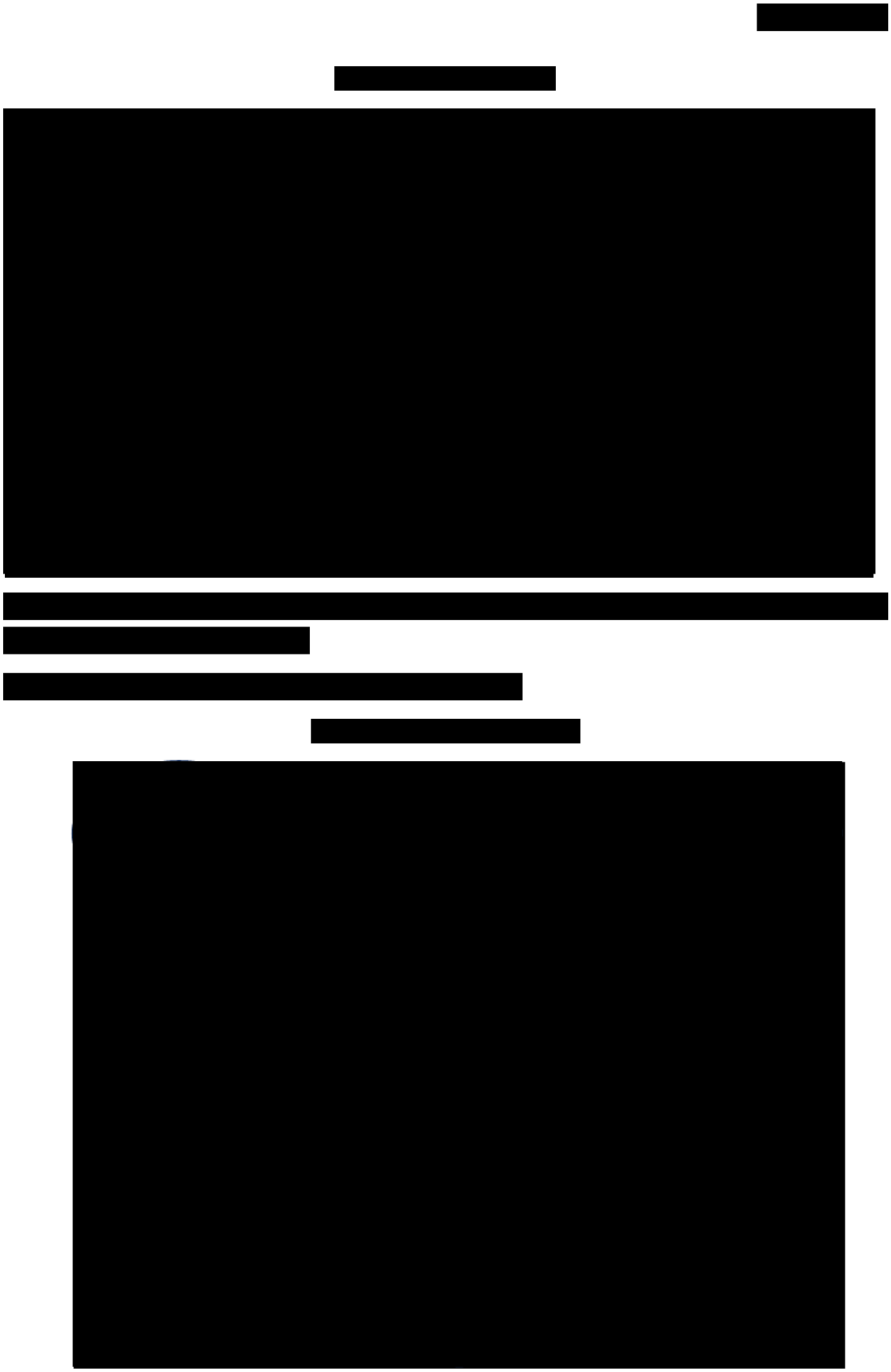
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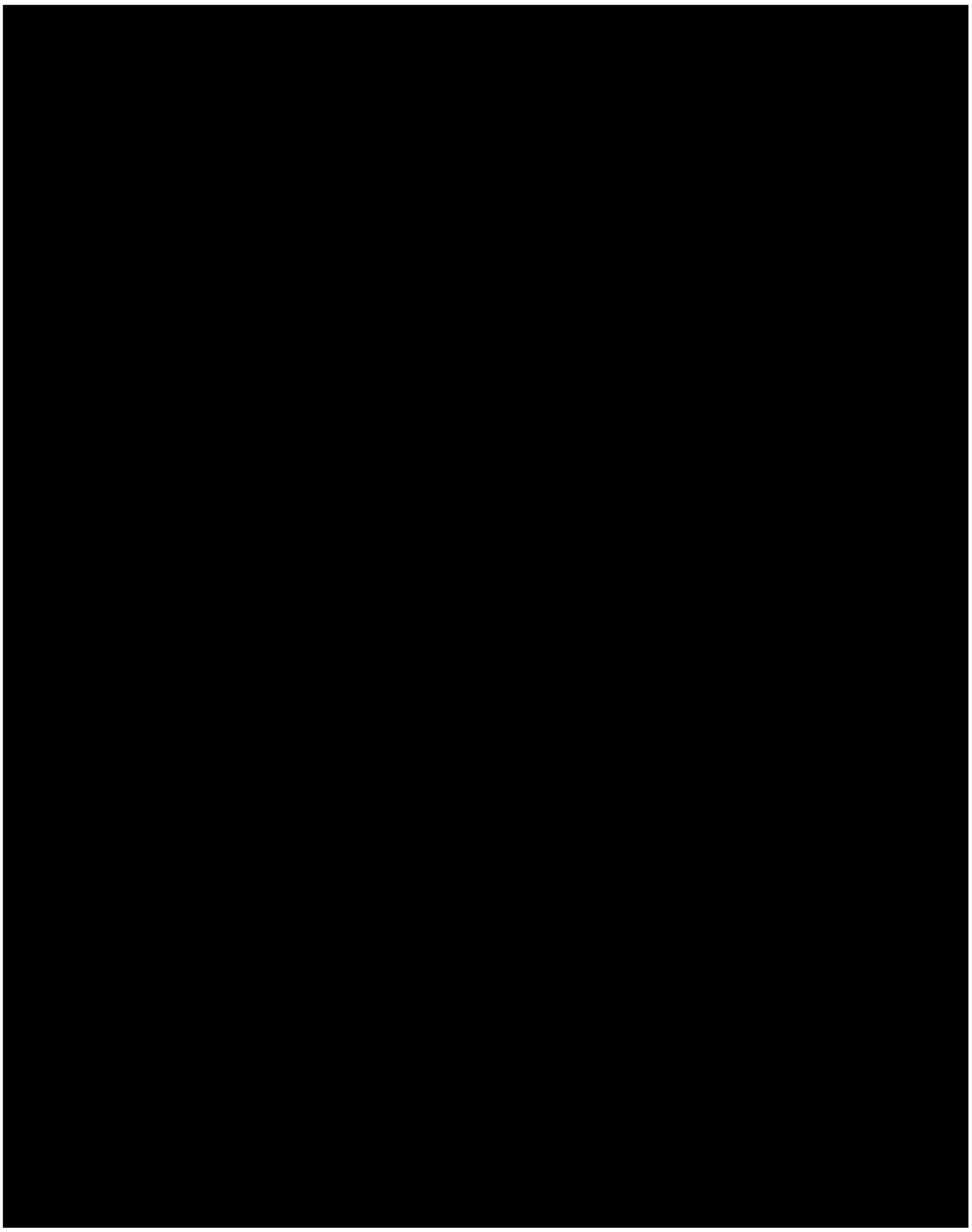


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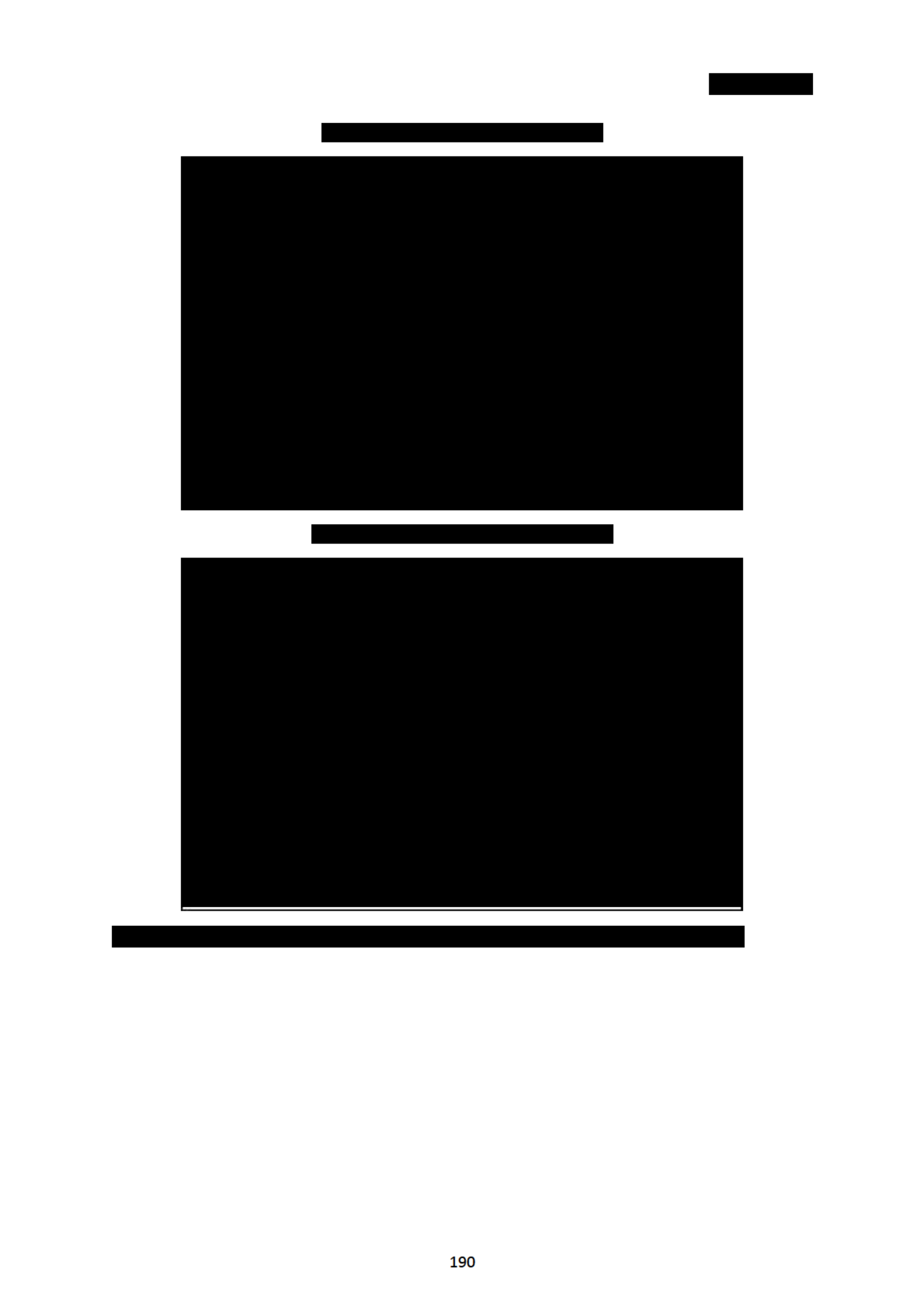
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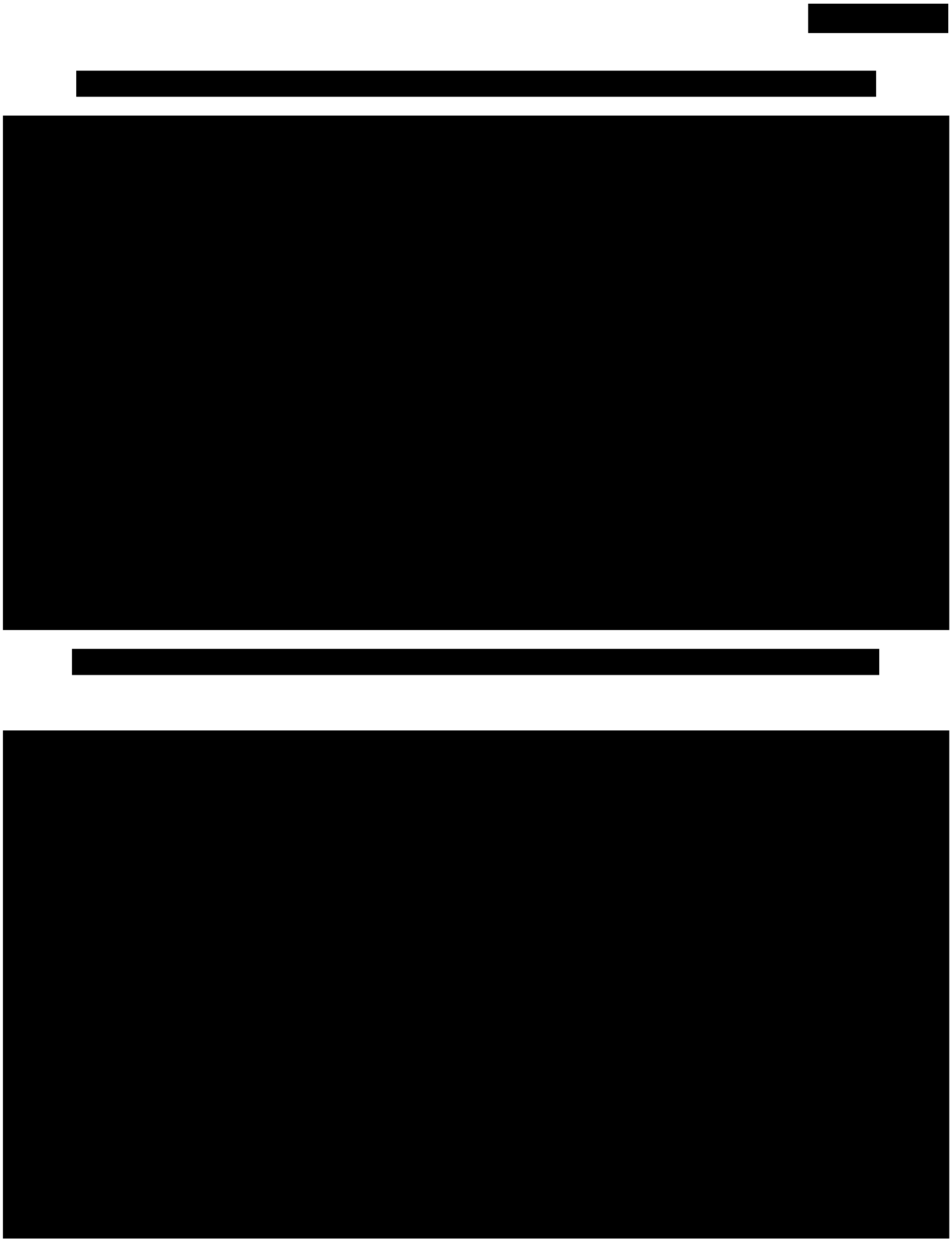
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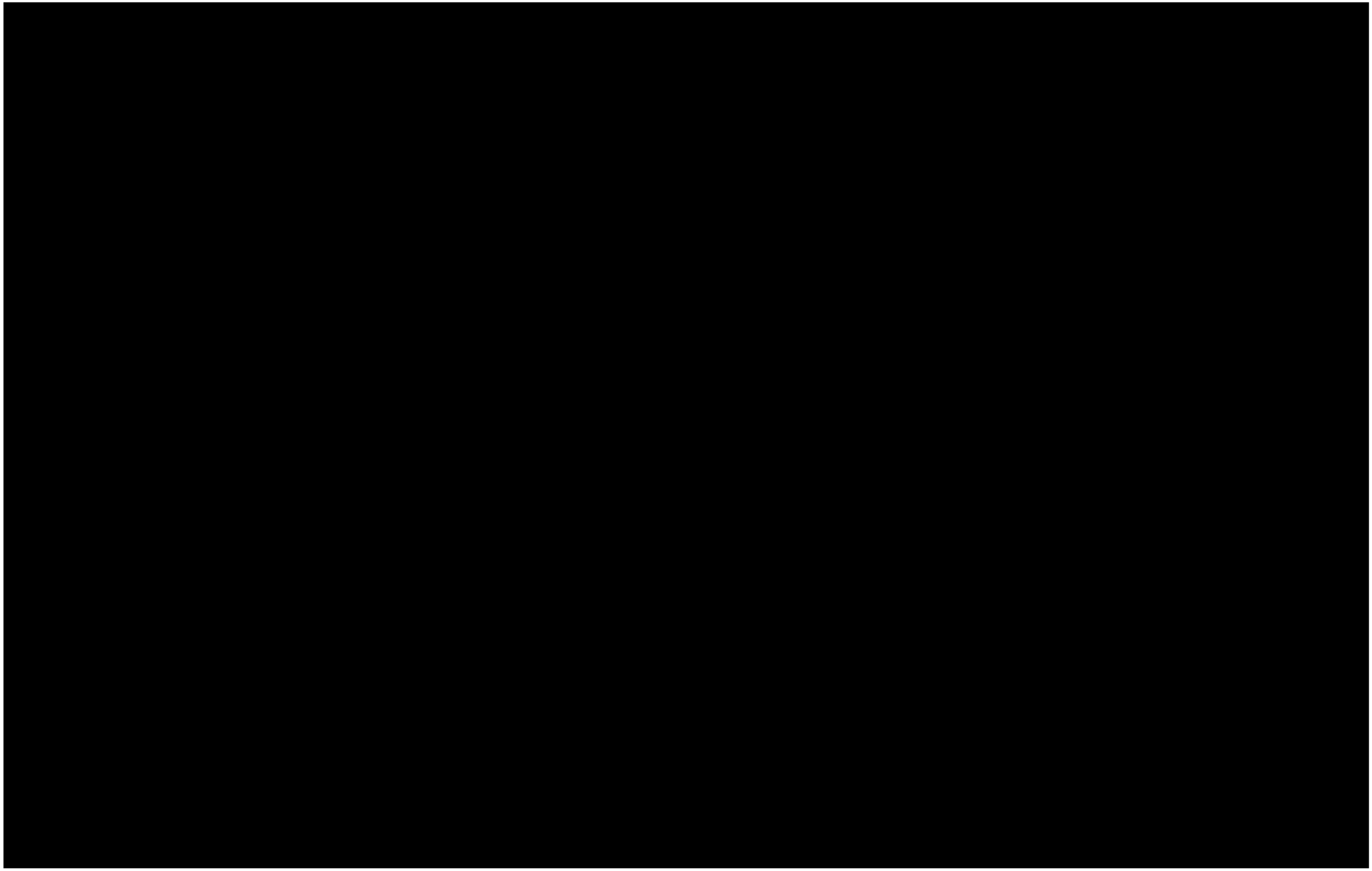
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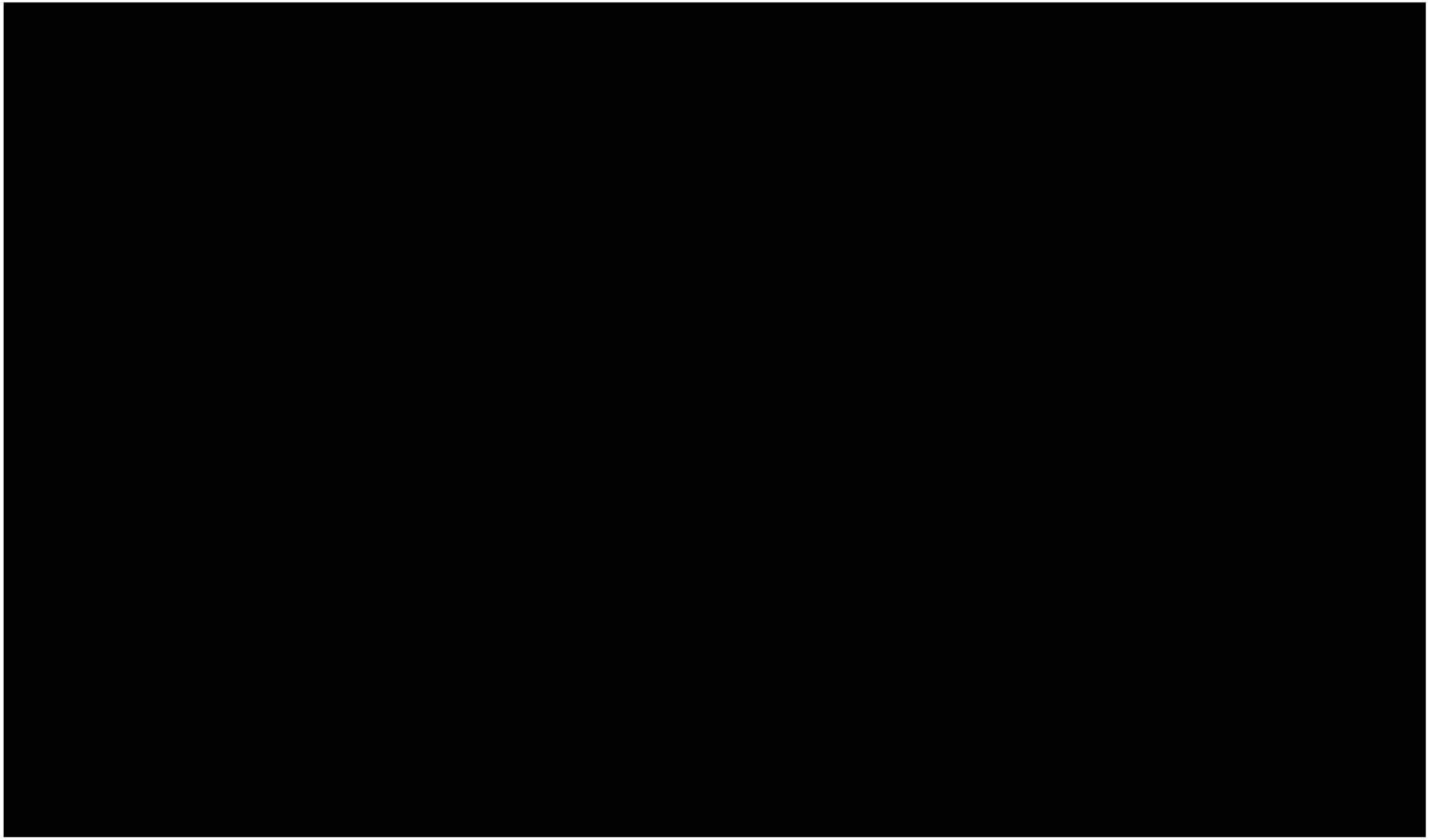






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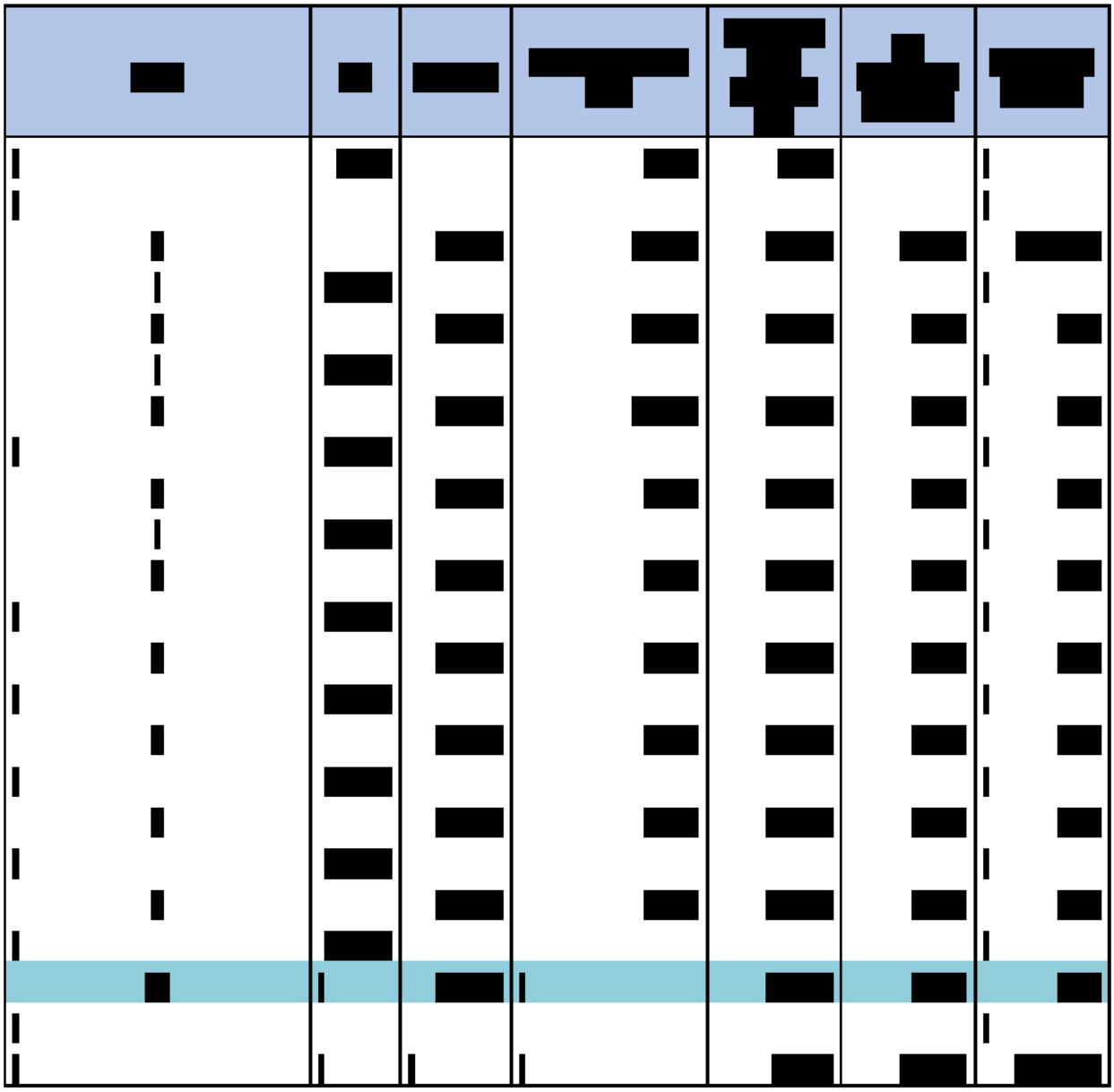
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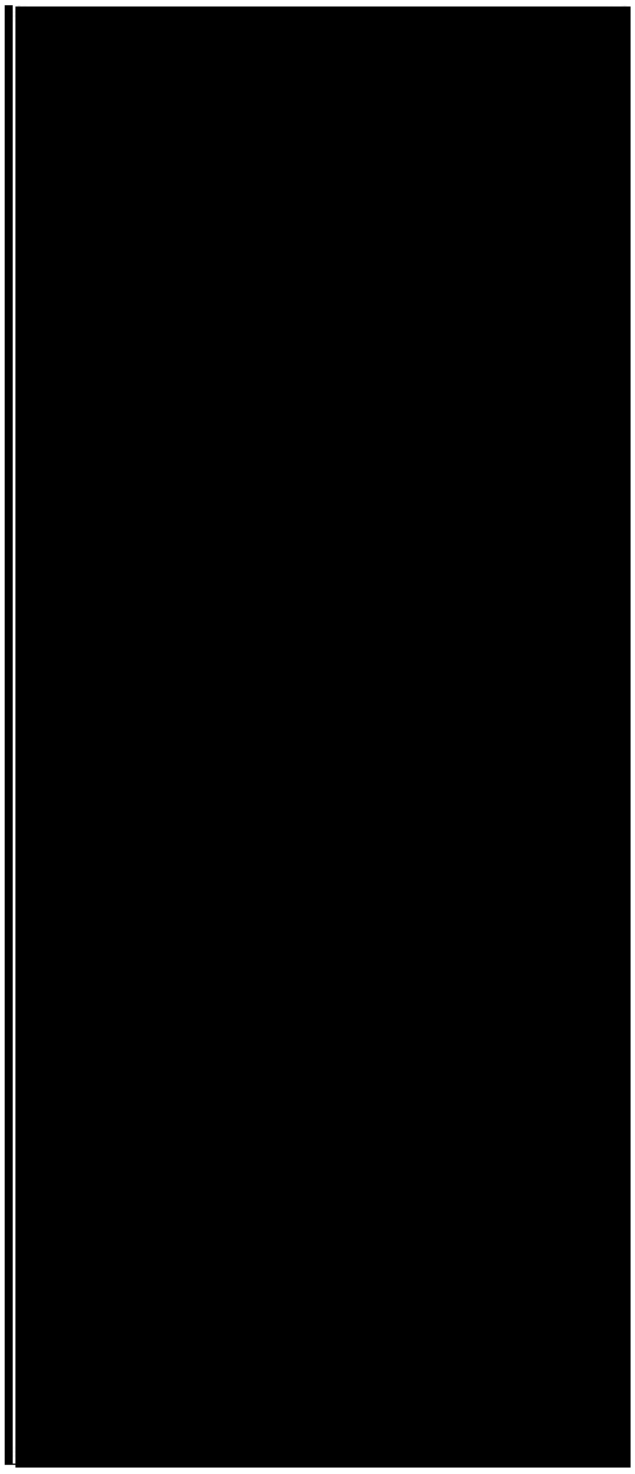
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13. Annex: Extraordinary Tariff Review Methodology Proposal

The Extraordinary Tariff Review (ETR) mechanism helps in dealing with unexpected events impacting the company cash flow heavily, wherefore delaying much needed tariff adjustments until the next period review becomes unsupportable by the NWC.

The NWC may request the OUR to consider the submission of an Extraordinary Tariff Review Application based on exceptional circumstances. These circumstances could not be reasonably anticipated at the time of the latest periodic tariff review but to handle events of major cash-flow consequences beyond company control.

Since these extraordinary tariff adjustments apply only to the current review period, not carrying on to the next period, the ETR shall not imply rescheduling the next stipulated OTR period.

Where possible, the ETR scope will be limited to cash flow items affected by triggering extraordinary events; and therefore, the review process is expected to be completed within a 60-day period, unless otherwise agreed by the OUR and the Licensee.

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15. Annex: OPEX associated to hurricanes

There are 13 CCs associated with hurricane costs within financial data.

Table 125: Hurricane-Related OPEX by Cost Center

Name CC	CC	OPEX
Hurricane Beryl (Corporate) - July 2024	CPR60007	
Hurricane Beryl (East) - July 2024	EVP60007	372000
Hurricane Beryl (West) - July 2024	WVP60007	21017370
Hurricane Melissa (Clarendon) - October 2025	ECL60008	1698671
Hurricane Melissa (Corporate) - October 2025	CPR60008	2212928
Hurricane Melissa (Hanover/Westmoreland) - October 2025	WHW60008	118172215
Hurricane Melissa (KSAT) - October 2025	EKT60008	25658401
Hurricane Melissa (Manchester/St. Elizabeth) - October 2025	WME60008	37911766
Hurricane Melissa (Portland/St. Mary) - October 2025	EPM60008	18966712
Hurricane Melissa (St. Ann) - October 2025	WAN60008	13721404
Hurricane Melissa (St. Catherine) - October 2025	ECA60008	74144795
Hurricane Melissa (St. James/Trelawny) - October 2025	WJT60008	157837348
Hurricane Sandy - October 2012	CPR60006	

Source: Consultant's elaboration based on NWC financial data

OPEX related to hurricanes amount 471.7 million which adds up to 1.11% of Total OPEX in base year. These expenses are incorporated as shared costs among parishes in Admin expenses. The main group of expenses that highlights are "Other" expenses,

Table 126: Accounting and Regulatory Hurricane-Related OPEX

	Contracted Services	Employee Costs	Gas & Fuels	Materials	Other	Security	TOTAL	
Clarendon	34,135			10,000	1,836,012		1,880,147	**0.4%**
Hanover				175,226	43,162,878		43,338,104	**9.2%**
Kingston	352,694			2,699,825	20,335,779		23,388,298	**5.0%**
Manchester			9,610	298,591	20,643,642	1,006,121	21,957,964	**4.7%**
Portland	13,999				7,274,423		7,288,422	**1.5%**
Saint Ann	29,979			6,478	13,844,332		13,880,789	**2.9%**
Saint Catherine	200,481			742,000	73,869,432		74,811,913	**15.9%**
Saint Elizabeth			9,798	304,413	21,046,203	1,025,741	22,386,155	**4.7%**
Saint James	191,708	618,478		426,872	121,202,894	1,614,742	124,054,694	**26.3%**
Saint Mary	22,806				11,851,156		11,873,962	**2.5%**
Saint Thomas	45,906			351,404	2,646,868		3,044,178	**0.6%**
Trelawny	67,642	218,222		150,617	42,765,005	569,743	43,771,229	**9.3%**
Westmoreland				323,611	79,714,142		80,037,753	**17.0%**
Total	**959,350**	**836,700**	**19,408**	**5,489,037**	**460,192,766**	**4,216,347**	**471,713,608**	
	0.2%	**0.2%**	**0.0%**	**1.2%**	**97.6%**	**0.9%**		

Source: Consultant's elaboration based on NWC financial data

Accounting OPEX associated with hurricanes amounted to JMD 471.71 million. As described in Section 5.4.1.3 Regulatory Adjustments to Test Year OPEX, a regulatory adjustment was applied to Employee

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Costs. Since hurricane-related OPEX includes employee costs, this adjustment results in a slight increase in hurricane-related OPEX from JMD 471.71 million on an accounting basis to JMD 471.79 million on a regulatory basis.

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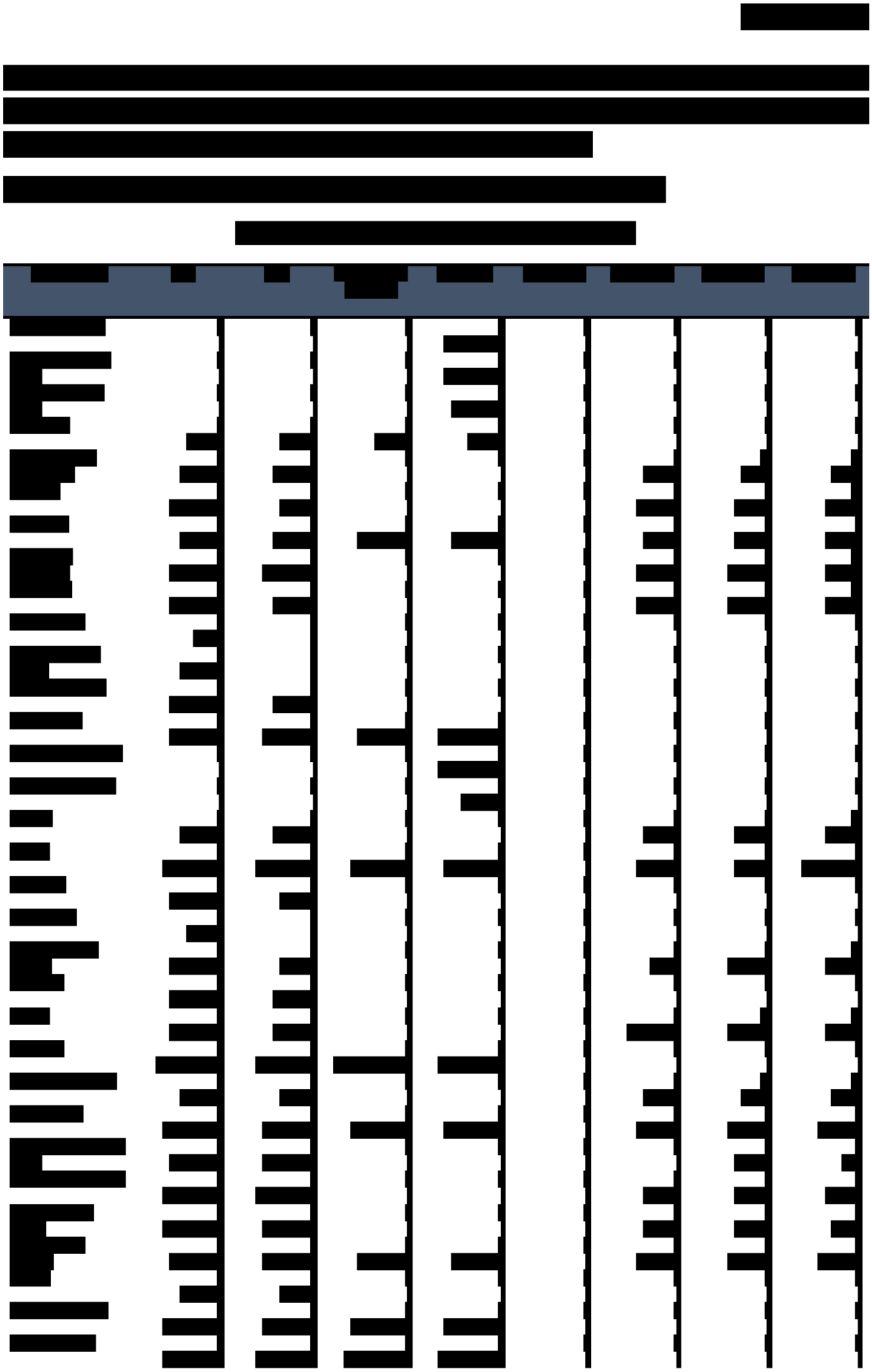
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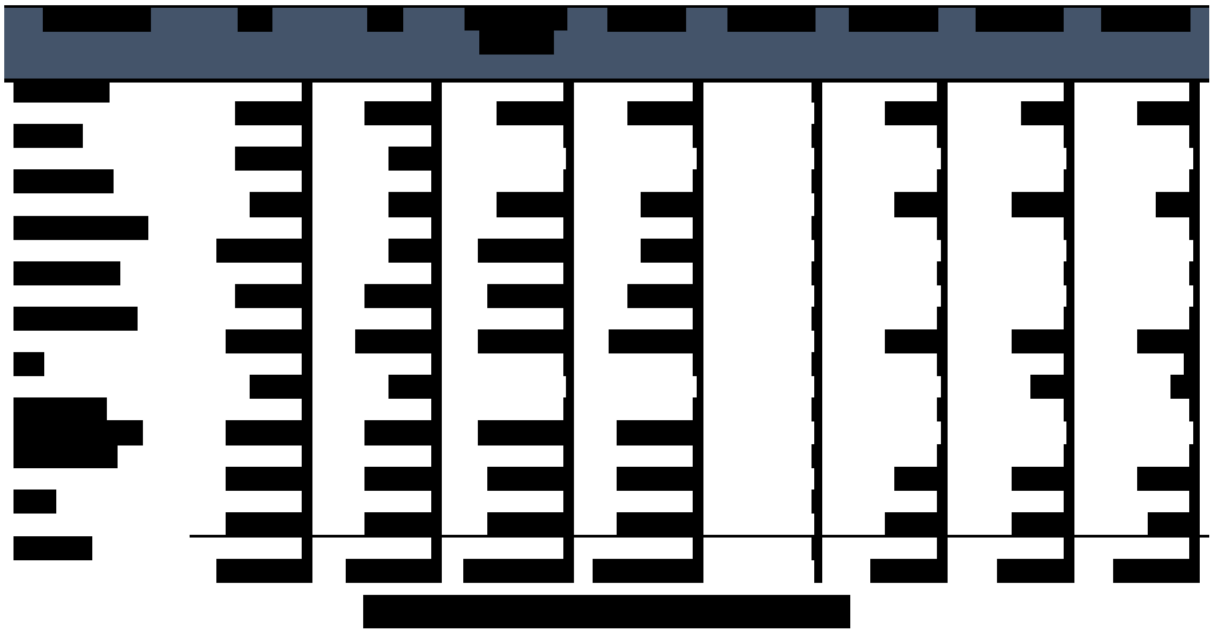
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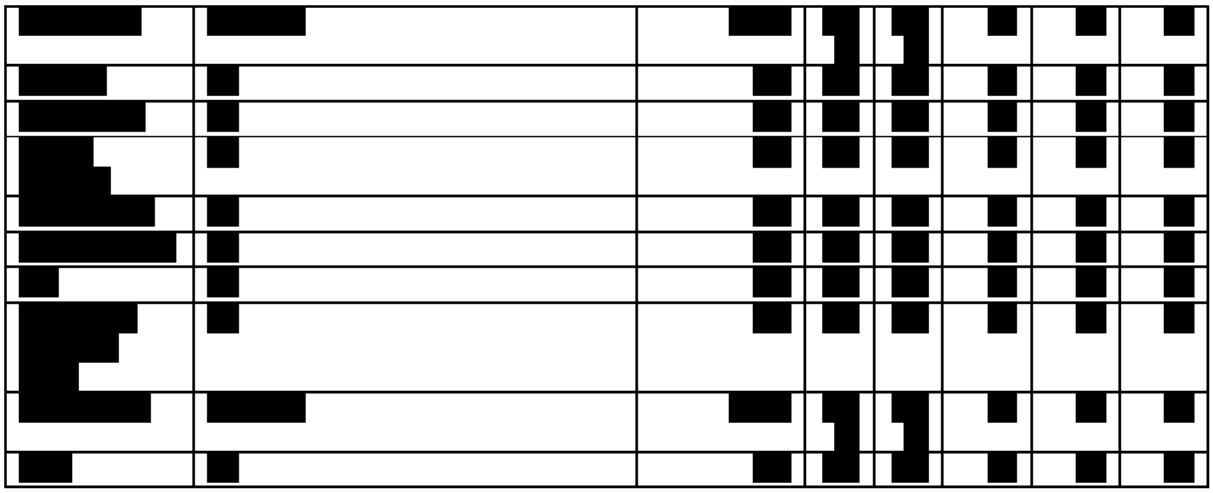
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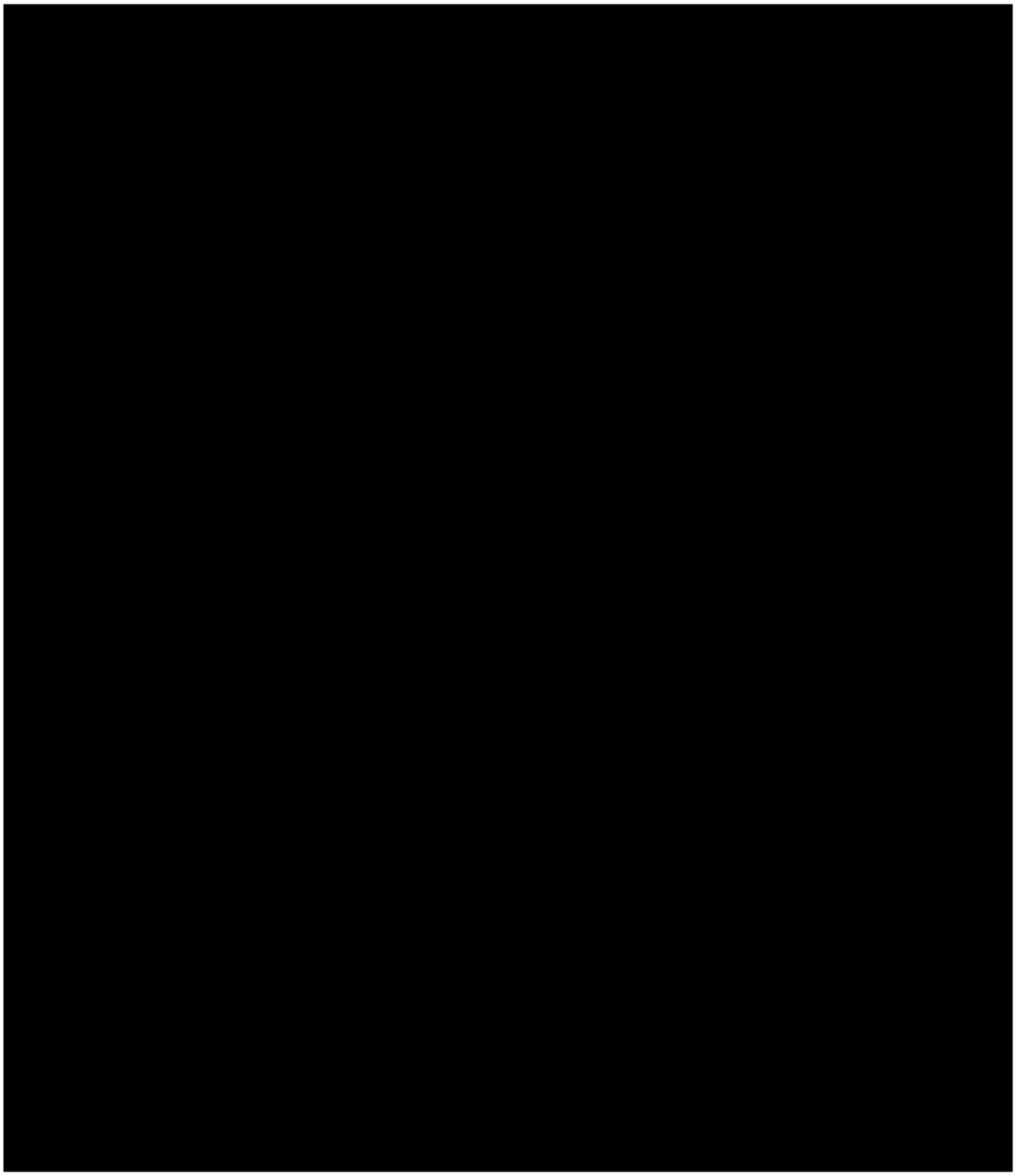
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