



Authority's Decision and Commission Order

Case U-0010-25

In the matter of issuing a Water Tariff for EMTEM Lagoon Water Supply

August 2025

1. Executive Summary

The Utilities Regulatory Authority's (the Authority) Strategic and Action Plan 2022-2026, dictates the outputs to be achieved by the Authority during the five-year tenure from 2022 to 2026.

One of the Authority's main outputs or goals in its current strategic and action plan is to maximize access to regulated services.

1.1 Functions and powers of the Authority

The Utilities Regulatory Authority (the Authority) is the economic regulator of electricity and water service providers throughout Vanuatu. The functions and powers of the Authority are stipulated in the Utilities Regulatory Authority Act No.11 of 2007 (as amended).

The Authority is responsible for ensuring that maximum access to regulated services is attained, the services are safe, reliable, affordable and that the long-term interest of customers is protected.

The Authority is issuing this tariff determination under Section 18 of the Act which mandates the Authority to set the maximum tariff for electricity and water services.

1.2 Tariff methodology and process

A rate of return tariff determination approach was considered in determining a base tariff for Emtem Lagoon Water Supply.

A list of the water operator's main operating costs is assumed as the utility is in its initial stages of operations. Benchmarking of costs and services to two existing private water networks on Efate were also considered.

1.3 Final maximum tariff of 197 Vatu/m³

The Authority has determined and is issuing a flat base tariff of 197 Vatu/m³ to the operator of Emtem Lagoon Water Supply to apply onto its customer invoices for each unit of water consumed.

The operator will be applying quarterly billing system.

The issued tariff is only for one year. The tariff will be reviewed by the Authority using the operator's actual operational cost figures. Revision to this rate is subject to actual operational and network technical data provided to the Authority by the Operator and the Authority's independent financial and technical auditing.

1.5 Management of the system

The water supply network is owned by Mr. Sen LIN. It is a registered company hence decision-making regarding operations is undertaken by the owner.

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1.1 Case Information

Case number	U-0010-25
Applicant	Utilities Regulatory Authority
In the matter of	EMTEM Lagoon Water Supply
Commencement date	June 2025
Completion date	July 2025
Tariff Period	August 2025-August 2026

1.2 Purpose of this document

This document outlines the Utilities Regulatory Authority’s (the Authority) tariff determination and the issued maximum base price for EMTEM Water Supply Limited to apply to its customers at the Club Hippique Area in Port Vila, Efate.

The document also describes the methodology implemented by the Authority with the assumptions undertaken.

1.3 Legal Context

The Authority is mandated under section 18 of the Utilities Regulatory Authority Act No. 11 of 2007 (as amended) to determine the maximum price to be applied by an electricity or water service provided/utility to its customers.

A utility is defined under section 1(1) of the Act to refer to “a person who supplies a regulated service to a consumer for payment.”

1.4 Tariff of 197 VT/m³

The Authority has determined a tariff figure of 197 Vatu per cubic meter (VT/m³) for EMTEM Water Supply Limited to apply from August 2025 to July 2026.

Actual operation and performance data to be collected during the period will be used in a tariff reset for the operator in August 2026.

2. Methodology

2.1 Reasonable Tariff

In June 2025, a consultant engaged by the water network owner had approached the Authority to inform the regulator of its intention to supply water at the subdivision at Club Hippique Area, hence requested the Authority to issue a tariff.

EMTEM Water Supply Limited is a newly established water utility that will be supplying water, for the first time, to its customers in phase (stage) 1 at the Club Hippique subdivision area on Efate. As informed by the Owners of the Company, the water network will commence operation after installation of its solar panels in the month of August 2025.

Consultations with the owner occurred during the early stages of the tariff review process which included an on-site visit to the water pump station and along the water network. Data and

information were shared with the Authority including advice provided to the operator on certain aspects of operation.

2.2 Tariff determination approach

With information supplied, the entire network is financed through equity from the owner therefore a rate of return tariff setting approach was considered in determining the issued tariff to ensure that the owner receives reasonable return on investment made and the tariff also allows for a reasonable level of operational and maintenance costs is covered.

A list of the water operator’s main operating costs is estimated. It will be the operator’s first year of supplying water as those who have leased land in the subdivision commence to establish themselves in settling in with developing their respective lots. Benchmarking of costs and services to three existing private water networks on Efate were also considered.

A projected total operational cost (in Vatu) to operate the system for one year including depreciation and return on investment is divided by a forecasted demand (in cubic meters) figure to reach the maximum base tariff amount that the Authority is issuing.

The details of EMTEM Water Supply Limited forecasted total required revenue and demand are provided in the subsequent sections of this document.

3. Network schematic and parameters

3.1 Network Location

EMTEM Water Supply Limited is in Club Hippique area on Efate. Phase 1 of the subdivision has a total of 60 plots as shaded in the subdivision map provided in figure 1.

Figure 1 Map of Subdivision at Club Hippique Area, Efate

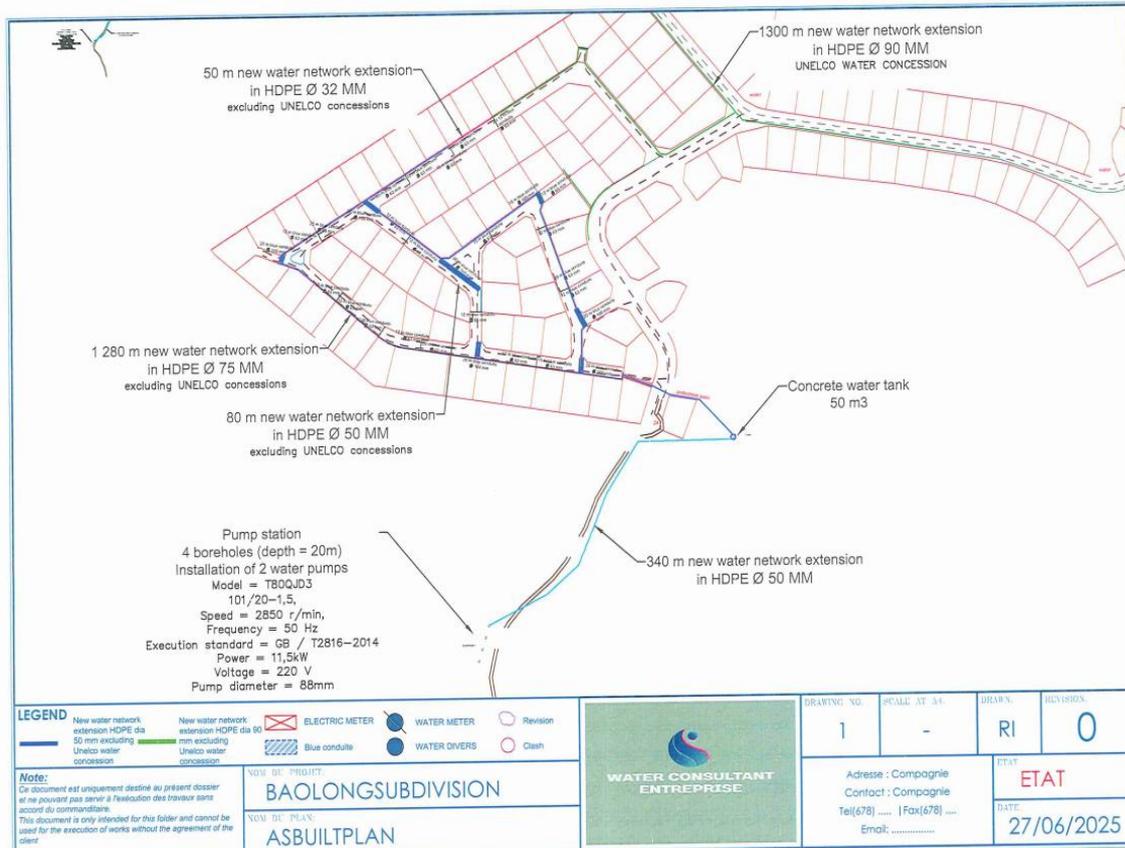


Source: Caillard & Kaddour website (Google Map), 11/09/23

3.2 Network schematic

As provided by the operator to the Authority, a visual representation of the water network architecture for Phase 1 of EMTEM Water Supply Limited is as illustrated in figure 2.

Figure 2 EMTEM Water Supply Limited's network schematic



Source: EMTEM Water Supply Limited, July 2025

3.3 Network parameters

EMTEM Water Supply Limited has four (4) water boreholes, each with a depth of 20m. From the on-site inspection of the network, the Authority is informed that only two boreholes will be connected to an array of solar panels. In total 7 solar panels of 450 Watts each will be installed in August 2025 and connected to two water pumps.

The specifications of the two water pumps are:

Per Water Pump Specifications
> Model= T80QJD3-101/20-1,5
> Speed= 2850 r/min
> Frequency= 50 Hz
> Execution standard = GB/T2816-2014
> Power= 11.5 kW
> Voltage = 220V
> Pump diameter= 88mm

A water storage tank in cement of 50 cubic meters is installed at an elevated level in the subdivision. It is an old cement water tank that has been refurbished and in good condition (opening is well covered with galvanized steel), ready to be in use.

The operator has informed the Authority that there are plans in place for a second water storage tank to be built once stage 2 subdivision is finalized.

However, as at July 2025, the operator is yet to install the solar systems and connect its water pump to supply water tank to its storage facility. It is confirmed that the solar panel shipment from China has arrived, and the panels will be installed in August.

Network pipes and meter stands are visible throughout the subdivision premises and a total of, as confirmed by the operator, 60 meters have been purchased and ready to be installed.

Phase 1 of the subdivision has a total of 60 plots and a total network extension length of 1280 m in polyethylene High Density (HDPE) diameter of 75mm including a 80m water network extension in polyethylene High Density (HDPE) diameter of 50mm.

4. Governance

The water network is privately owned by Mr. Sen LIN and it is registered under the Vanuatu Financial Services Commission (VFSC). Registration was made on December 5, 2024.

EMTEM Water Supply Limited is the regulated entity.

The location of the water network is at the end of UNELCO Engie’s water concession boundary at Club Hippique area. A three-meter ease way fencing has been built to clarify where UNELCO’s water network ends.

5. Tariff Determination

5.1 Flat tariff of 197 Vatu/m3

The Authority has determined and is issuing a tariff of 197 Vatu per cubic meter (VT/m3) for EMTEM Water Supply Limited to apply from August 2025 to July 2026.

There are no customer classes nor customer category tariff(s) issued in this tariff determination for the operators first year of operation as there is no actual historical customer demand data to use.

Table 1 Breakdown details of 197 Vatu/m3

Operating Expenses	Vatu	689,220
Depreciation	Vatu	1,027,261
Staff Salaries	Vatu	1,036,800
Return on Investment	Vatu	1,610,052
Total Required Revenue	Vatu	4,363,332
Demand	m3	22,143
Base tariff	Vatu/m3	197

Source: URA Staff

5.2 Cost of Service (in Vatu)

The Authority has projected a total cost of service of Vatu 689,220

Table 2 Breakdown of Cost of Sales

	Operator's submission		URA	
	Monthly (Vatu)	Annual (Vatu)	Monthly	Annual (Vatu)
Internet	13,535	162,420	2,500	30,000
Phone	10,000	120,000	2,500	30,000
Utilities	60,000	720,000	5,000	60,000
Travel	200,000	2,400,000	5,000	60,000
Office Supplies (stationary)	25,000	300,000	5,000	60,000
Rent	100,000	1,200,000	20,000	240,000
Miscellaneous	30,000	360,000	5,000	60,000
Fuel for Water Company vehicle (x2), if any	40,000	480,000	10,000	120,000
Fuel for Diesel Pump Generation, if any	40,000	480,000	-	-
Repair and Maintenance	11,890	142,680	19,220	19,220
Business License and Registration	50,000	50,000	833	10,000
Total OPEX (excl Personnel Cost)	580,425	6,415,100	75,053	689,220

Source: URA, July 2025

1.1 Total Personnel Expenses of Vatu 1,101,600

Table 3 Breakdown of Personnel Expenses

Level/Function	Number of Staff	Monthly Rate (Vatu)- benefits included	VNPF per staff (staff + operator =8%)	Total Annual Salary per Staff, Vatu
Manager (also Technical Staff)	1	50,000	4,000	648,000
Administrative Officer	1	-	-	-
Network lines man 1	1	35,000	2,800	453,600
Total	3	85,000	6,800	1,101,600

Source: URA, July 2025

5.3 Demand (in cubic meters sold)

The Authority has determined a demand forecast amount of 22,143 m³ sold amount.

Table 4 Detailed breakdown of Water Consumption (Demand)

Customer number (active)	No.	60	Phase 1 of EMTEM Subdivision at Club Hippique area. A total customer base by 31/07/2026.
Average annual consumption per customer	m ³	1369	Assumed consumption level.
Total Demand forecast (for 12 months)	m ³	22,143	Total cubic units of water expected to be sold by the operator by 31 July 2026.
Estimated per day per customer Demand	m ³		Assumed figure

Source: URA, July 2025

5.4 Depreciation

EMTEM Water Supply Limited's total capital cost is Vatu 19,219,743. A total asset depreciation amount of Vatu 1,027,261 has been included in the tariff.

Table 5 EMTEM Fixed Asset List and Depreciation Schedule

Fixed Asset Registry- provided 26 June 2025

Depreciation Schedule

List of Assets	Asset Description	VAT Inclusive Total Cost (Vatu)	Source of Asset Financing	2024	2025	
				Year 1	Year 2	
Assets at Water Pump Station						
Drill boreholes	Contract for the drilling of four boreholes.	3,839,743	Equity	202,092	213,319	
Water pump	Acquisition of two water pumping units	800,000	Equity	42,105	44,444	
Small fittings	Purchase of minor plumbing fittings for water connection	300,000	Equity	15,789	16,667	
Labour	Provision of labor for installing the pump and all related fittings	500,000	Equity	26,316	27,778	
Distribution Assets						
Material	Purchase of all water material of the new water network extension and water service connection in the subdivision	6,000,000	Equity	300,000	315,789	
Labor	Labor for the earth and water works	7,000,000	Equity	350,000	368,421	
Office and Administration Assets						
Water Consultant Entreprise	Water engineering assistance for the development of the distribution network.	300,000	Equity	15,000	15,789	
Drawings plans	Drawing the as built plan	80,000	Equity	3,810	4,000	
Survey	Topographical survey	400,000	Equity	20,000	21,053	
Total Capital Cost, Vatu		19,219,743				
				Annual Depreciation, Vatu	975,112	1,027,261
				Accumulated Depreciation		2,002,372
				Net Book Value, Vatu	18,244,631	17,217,371

Source: URA, July 2025

5.5 Return on Investment

The capital gearing ratio for EMTEM Water Supply Limited is 100% equity. The cost of capital of Vatu 19,219,743 is fully financed by a sole owner, Mr. Sen Lin.

Capitalised are network materials including labour works required to build the network infrastructure.

Inline with regulatory principles and the tariff setting methodology used, the owner is allowed a reasonable return on investment amount of Vatu 1,610,052.

Table 6: Return on Investment details

		2025-2026
Asset Base		
Net Book Value	Vatu	17,217,371
Working Capital	Vatu	496,526
Severance	Vatu	0
Regulated Asset Base	Vatu	17,713,897
Rate of Return on Investment	%	9.09
Return on Investment	Vatu	1,610,052

Source: URA staff

The Authority's allowed rate of return calculated for EMTEM Water Supply Limited is 9.09%.

Table 7 Capital Asset Pricing Model: Rate of Return of 9.09%

CAPM components			
Risk free rate	%	6.41	RBV 10 year bond rate As of July 2025
Market risk premium	%	3.94	
Country risk premium	%	0	Beta for Utility (Water)
Equity Beta	Coeff	0.68	
Return on Equity	%	9.09	

Source: URA, July 2025

6. Customer Charges and Usage

6.1 Customer Categories and Billing

The Authority is informed by the operator that it will be issuing water bills/invoices to its customers on a quarterly basis based on the quantity of water each customer consumes.

There are no fixed charges nor customer category rates issued by the Authority in this tariff period (2025-2026).

6.2 URA surcharge & VAT

URA surcharge/levy does not apply. EMTEM Water Supply Limited is exempted in this tariff period as it is a new water operator.

The water tariff of 197 Vatu/m³ is both VAT and URA surcharge exclusive figures.

URA surcharge/levy shall not be applied in this first year of operation.

6.3 Application of the Customer Tariff

A simple demonstration of customer bills with the flat tariff of 197 Vatu/m³ (VAT excluded) for various cubic meters consumed is shown below. A customer will be expecting a quarterly bill of:

Table 8 Billing Calculation (simple)

Water consumption (m ³) in one Quarter (3 months) [A]	Tariff (Vatu/m ³) [B]	Consumption Bill (less VAT) [C= A*B]
Total 30 m ³	197	5,912 Vatu
Total 50 m³	197	9,853 Vatu
Total 90 m ³	197	17,735 Vatu
Total 110 m³	197	21,676 Vatu

Source: URA, 2024

7. Regulatory Requirements and Conditions

7.1 Operator's responsibilities

EMTEM Water Supply Limited is expected to:

- 1. Maintain complete and proper bookkeeping of its accounting and finance transactions.**
 - *EMTEM Water Supply Limited should ring-fence, meaning keep a separate book keeping record of its accounts and finance transactions, from the owners' other business activities.*
 - *Recording and reporting of water supply related accounting and finance transactions should be maintained separately to other business activities.*
- 2. Issue to each respective customer with a water meter connection a Customer Contract Agreement.**
- 3. Collect from customers an advance on water consumption amount as Security Deposit.**
 - *Funds collected as Security Deposit money should be kept by the operator in an interest-bearing account.*
 - *The Security Deposit amount to be collected from each customer will vary depending on a customer's anticipated total water demand in cubic meter of water in one quarter.*
- 4. Adhere to the Authority's billing and collection rules.**

7.2 Reporting Requirements

During the operator's first year of operation, the Authority requires the operator to provide the following:

- 1. Semi-annual financial and network technical reports of EMTEM Water Supply Limited's total accounts and performance data.**
- 2. Fixed Asset Registry as at July 2026.**

8. Notice of Grievance

If the utility or any affected person is aggrieved by the Authority's Final Decision and Commission Order, it may request the Authority to reconsider the decision on issues aggrieved upon. A Notice of Grievance must be submitted within 30 days of the Order's gazettal. The Notice should contain:

- The issue or issues being contested
- A detailed description of any facts or matters supporting the grievance
- Copies of any documents supporting the grievance
- A detailed description of any alleged error of law or fact
- A detailed description of any relevant change in facts or circumstances since the Authorities Final Decision.

A Notice of Grievance can be addressed to:

Chief Executive Officer
Utilities Regulatory Authority

The Notice may be:

- *Delivered in person to the URA Main Office in Port Vila addresses:*

Port Vila Head Office:
Utilities Regulatory Authority (URA)
Rue de Languedoc
Number 2 Area
Port Vila, Efate
Vanuatu

- *Mailed to:*
Case U-0010-25
Utilities Regulatory Authority
P.M.B 9093
Port Vila
Vanuatu
- *Or Email to:*
Ms. Belinda Reuben
Manager Corporate, URA
breuben@ura.gov.vu

If the Authority receives a timely Notice of Grievance, it will conduct a review in accordance with Section 27 of the URA Act. If upon review the Authority determines that the grievance is justified, then it shall revoke, amend or vary the decision on the matter being complained

The URA office can be contacted by telephone at +678 23335.