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Final Decision and Order

NOTICE NO. 95 OF 2014

In the matter of the Application from VUI Ltd. for a tariff decrease for electricity services in Luganville

Case U-0001-14



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A word from the Commissioners

The Utilities Regulatory Authority (URA) Commission is pleased to issue this Final Decision and Order in the matter of the request from Vanuatu Utilities and Infrastructure Limited (VUI) for a tariff decrease for electricity services in Luganville, Case U-0001-14.

As outlined in the Commission's Preliminary Decision issued on the 15th of January 2014, this is not a full tariff review. The scope was limited primarily to a review of the impact on generation costs due to an increased utilization of the Sarakata hydropower plant, updated from actual performance since 2011.

The Preliminary Decision proposed a price reduction of 15.7% across the board for all consumers. During an extensive consultation period the Commission received additional information and comments from VUI, consumers and interested persons, which were taken into consideration in arriving at this Final Decision and Order.

The highlights of this Order are as follows:

- Base rate for VUI is reduced by 14.06% from the December 2013 level of 54.76 VUV/kWh to 47.07.
- VUI shall assume responsibility for street lighting operations and maintenance in its service area.

This is a major change from preliminary decision. The Commission has determined that in the interest of public safety and convenience, the street lighting should be maintained and operated by VUI with no further cost increase to the consumers. This represents an additional 1.7% savings to the customers.

The current monthly base rate adjustment mechanism is abolished and replaced with an annual reconciliation.

The Commission has reaffirmed to replace the current monthly base rate adjustment mechanism by an annual reconciliation based on changes in fuel price and efficiency in generation. As a result the customers' tariffs shall remain uniform throughout the year, while the power company shall absorb any volatility in diesel prices. The annual reconciliation shall compare the estimated annual generation cost to the actual cost and make appropriate adjustment in the tariffs.

- Other operating costs shall be reviewed on annual basis to validate the estimates against actual.
- VUI shall establish a Fund for Electricity Related Projects as directed in this Order.
- As proposed in the Preliminary Decision, a 1 VUV per kWh contribution shall be made to the Fund by VUI.

The funds will be collected from the customers through the monthly billings. From Staff analysis, this will increase the tariff by 2.17%. Commission notes the additional burden placed on customers to contribute to the fund but believes that having such a fund in place will maximize access and quality of electricity services in Santo. The fund will be administered by the URA in collaboration with a Fund Committee comprising the URA, VUI, the Luganville Municipal Council, and the Department of Energy. URA shall supervise the Fund and issue an annual report.

An incentive mechanism based on Sarakata hydro performance is adopted.

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If VUI can improve the performance of the Sarakata hydro from the 69% capacity factor assumed in this case, then it should be entitled to keep 50% of savings up to a maximum of 4 additional man-months. The remaining savings will be passed on to the customers.

Commission believes that lowering of electricity price in Luganville shall give a significant relief to customers of VUI. It should also stimulate business and industries to grow and expand in Santo. The street lighting services will see a marked improvement providing safe and well-lit streets in VUI's service area. An incentive mechanism will ensure the utility is operating at maximum efficiencies and further lowering customer prices. Establishment of the Fund shall allow accelerated service extensions to low income rural communities and in reaching the goals of NERM. Overall we believe that this rate Order provides significant benefits to the consumers and promotes economic development in Santo.

The Commission thanks the consumers of Luganville and Santo who enthusiastically participated in the public consultation meetings and provided valuable comments and suggestions in this proceeding. The Commission also appreciates the comments received from Government departments and cooperation from VUI. The Commission acknowledges the support of VUI in assuming the street lighting at no additional charge to the customers. Finally the Commission is very appreciative of the extensive and thoughtful analysis performed by the URA staff balancing the interests of consumers and the utility.

Sincerely,

Johnson Naviti, Chairman

Hasso Bhatia, PhD, Commissioner

Revised tariff sheet (including Fund contribution)

Customer category	Charge	Tariff of Dec-2013	New Tariff	Change
Low Voltage (including small domestic, business license holders, and other low voltage	Unit charge per kWh Up to 60 kWh 61-120 kWh 121-180 kWh Over 180 kWh	20.81 vatu per kWh 53.12 vatu per kWh 98.57 vatu per kWh 60.24 vatu per kWh	17.88 vatu per kWh 45.64 vatu per kWh 84.71 vatu per kWh 51.77 vatu per kWh	-14.06% -14.06% -14.06% -14.06%
customers)	Monthly fixed charge	None	None	None
	Security deposit for new connections	3,833 vatu for connections up to 2.2kVA 8,214 vatu per subscribed kVA for connections over 2.2 kVA	3,294 vatu for connections up to 2.2kVA 7,059 vatu per subscribed kVA for connections over 2.2 kVA	-14.06%
Sports Fields	Unit charge per kWh	54.76 vatu per kWh	47.06 vatu per kWh	-14.06%
	Monthly fixed charge	None	None	None
1	Security deposit for new connections	None	None	None
Public Lighting	Unit charge per kWh	29.57 vatu per kWh	25.41 vatu per kWh	-14.06%
	Monthly fixed charge	None	None	None
	Security deposit for new connections	None	None	None
High Voltage	Unit charge	38.33 vatu per kWh	32.94 vatu per kWh	-14.06%
	Monthly fixed charge	1,369 vatu per subscribed kVA	1,176 vatu per subscribed kVA	-14.06%
	Security deposit for new connections	8,214 vatu per subscribed kVA	7,059 vatu per subscribed kVA	-14.06%

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1. Introduction

Case information

Table 1: Case information

Case number	U-0001-14
Applicant	Vanuatu Utilities and Infrastructure Limited
In the matter of	Request for a tariff reduction for electricity services in Luganville, Santo
Commencement date	28th November 2013
Date of Preliminary Decision	15 th January 2014
Public Consultation in Santo	29th-30th January 2014
Date of Final Order	13 th March 2014

On January 15th 2014 the URA Commission (Commission) issued a Preliminary Decision in the case proposing a reduction in tariffs for customers of VUI Ltd. (VUI) by 15.7%. The proposed revised tariffs for various customer categories were attached to the Decision. The Preliminary Decision was based on the material and information filed by VUI, the Applicant, and on the investigation and recommendations of the URA Staff (Staff). In its report the Staff addressed several issues in a comprehensive review of the operating cost and generation efficiency to set the tariff that reflects current conditions and increased contribution from the hydro plant. The Staff Report and Recommendations were attached as part of the Preliminary Decision.

The Commission invited comments and inputs on the Preliminary Decision from consumers of VUI, Government and interested persons, in order to arrive at the Final Decision. Public meetings were organized by the Staff at various communities in Santo to explain the proposed decision and receive comments and suggestions from customers. The Preliminary Decision also sought comments from customers regarding the establishment of a Fund for the purpose of targeted applications to enhance accessibility, network upgrade and service extensions into rural and outlying areas of Santo. The primary aim of the Fund is to supplement efforts by VUI and donors to improve service accessibility to low income and rural areas. However Fund may also be utilized on an as needed basis to improve services in the area. This Final Decision and Order discusses comments and suggestions received from interested persons and renders opinion on issues raised.

Legal context

The legislation governing the regulation of generation, supply and sale of electricity in Santo is established by the Utilities Regulatory Authority Act No.11 of 2007 (the Act) as amended, the Electricity Supply Act No.13 of 2010, and the Memorandum of Understanding (MOU) entered into between the Government of Vanuatu and Pernix Group Inc. dated November 2010. VUI Ltd. is the subsidiary operating electricity services in Santo.

2. Discussions

Presented below are the Commission discussions on the comments and suggestions received arriving at this Final Decision and Order.

Street lighting in the VUI service area

Currently the street lighting system in VUI service area is owned, operated and maintained by the Luganville Municipal Council. Energy for the street lighting is supplied and billed by VUI under the tariffs approved by the URA. In its submission VUI has indicated that it is finding it difficult to collect payments from the Municipal Council, and arrears amounting to VUV 10 millions have accumulated as unpaid bills. A bulk of this billing is due to the street lighting service. VUI further states that it is hesitant to shut off service for street lighting as it is an issue of public safety. Moreover due to lack of funds the Municipality is unable to properly maintain and upgrade the fixtures, lamps etc. resulting in inadequate street lighting for the area. VUI represents that the Municipality has proposed reducing the hours of lighting among its solutions. Municipal Council has indicated willingness to hand over street lighting service to VUI.

VUI also represents that the Municipality has suggested that the utility shut off service to customers who have not paid their tax bills to the Municipality, which VUI has declined to do. Commission agrees with VUI and urges that the regulated utility cannot assume the role of a tax collector nor can it shutoff services for non-payment of taxes. Customer shut-offs can only take place when a) customer requests it, b) non-payment of bills and c) emergency conditions. Commission instructs that VUI refrain from taking any such action at the behest of the local authorities.

VUI estimated the total cost of operating and maintaining street lighting to be approximately VUV 383,000 per month and about VUV 5,000 per light bulb for maintenance, referring to an earlier contract established between the Municipality and the former Concessionaire.

Both VUI and the customers attending the public meetings raised concerns about the capacity of the Municipal Council to adequately perform street lighting functions. They expressed concerns regarding the safety and public security in Luganville. The customers requested the URA to consider requiring VUI to operate and maintain the street lighting and expressed willingness to pay additional charge in order to receive improved street lighting service.

From analysis carried out by the Staff, the total estimated cost of operating including electricity usage for the street lighting for 2014 is VUV 4,596,000. The maintenance cost based on 300 existing street lamps would represent an additional VUV 1,500,000 or a total of VUV 6, 096,000 per year. Assessing street lighting cost to electricity customers would thus raise the tariff by 0.76 VUV/kWh.

Staff discussed the issue with VUI who indicated its willingness to assume responsibility to operate and maintain the street lighting system in its service area. Further VUI accepted Staff proposal to assume the street lighting system within the tariff proposed in the Preliminary Decision, i.e. with no additional charge of 0.76 VUV/kWh to the customers.

Commission believes that maintenance of a sound working street lighting system is essential for safety and security of the citizens of Luganville and Santo. It is a public necessity and convenience. Well-lit streets also promote businesses, tourism etc. Relying on the Municipality to maintain the Street Lighting service has proven unsatisfactory. Under the circumstances VUI is the entity most capable of providing a sustainable and reliable street lighting service in Luganville. Commission therefore adopts the proposal by Staff and VUI that the utility operate and maintain the street lighting system in its service area. The URA requested VUI to work with the Luganville Municipality and obtain consent in writing for the transfer of maintenance and operational control of the street lighting. The letter from the Municipal Council indicating support for the Commission action was submitted to URA. A copy of the letter is annexed to the Final Decision.

Commission also accepts the understanding reached among Staff and VUI that the cost of street lighting estimated at 0.76 VUV/kWh shall not be charged to the customers. This represents an additional 1.7% benefit to the customers that is accounted separately from the 14.06% reduction in tariffs.

Man-month fee

In its submission VUI challenged the amount allocated for the management fee, capped at 20 man-months equivalent for the base rate calculation. VUI provided additional information showing the calculation of the man-month fee in previous years, and supporting evidence for higher rate than allowed in the Preliminary Decision. VUI states that the fee covers not just for salaries but benefits and travel costs in and out of the country for expatriate experts as well. VUI states that there is a continuing need for training of local Ni-Vanuatu engineers and technicians for generation and distribution systems by expat experts and that such training will likely continue for two years or more. VUI indicates the difficulty of finding local qualified staff to train in the various functions of the power system. VUI also represents that it is training its local Accounts Officer/Manager to take over as Financial Controller, which will take some time. To train and develop skills for managerial responsibilities VUI indicates that it scouts for experts around the world to come to Vanuatu. Further VUI suggests that as a foreign company operating in Luganville there will always be the need for an expat General Manager. Therefore VUI suggests that the management fee is justified and should be retained at the current level of 24 man-months.

The Commission understands the need for training local staff to develop engineering, technical and managerial skills. There are constraints of finding skilled technicians and financial managers to efficiently and sustainably operate the power company in Santo. Commission encourages VUI to continue its efforts at local capacity building. However, as Commission stated in its Preliminary Decision, there has to be a balancing of the revenues generated by the system and the fees charged for managing it. Moreover the Commission believes that all expats deployed need not be of the same category of responsibility as the General Manager. Some weighting system should be adopted to arrive at man-month equivalent which recognises the level of responsibilities. Travel and other expenses of experts could be better managed to reduce total expat expenses. Regarding need for a permanent General Manager the Commission shall monitor the progress in local capacity building to determine whether full time expat supervision is required in the future. Commission believes that, based on its understanding of international benchmark, maintaining the management fee under 20% of the operating costs is appropriate.

Therefore Commission reaffirms that the management fee of 20 man-month equivalent allowed in the Preliminary Decision is reasonable for rate making purposes.

However Commission believes that an incentive mechanism that compensates VUI on the basis of performance is desirable. While more comprehensive performance criteria maybe considered in future, a limited incentive mechanism based on increased hydro plant performance is feasible. If VUI can improve the performance of the Sarakata hydro from the 69% capacity factor assumed in this case, then they should be entitled to keep 50% of savings up to a maximum of 4 additional man-months. Potential savings and benefits to VUI and customers are illustrated below.

Hydro Capacity Factor	Savings kept by VUI*	Savings reverted to customers*
71%	3,160,613	3,160,613
73%	6,321,225	6,321,225
75%	9,481,838	9,481,838

Table 2: Savings projection based on improved hydro capacity factor (VUV)

*Assuming a total of 9,327,276kWh generated in 2014

The incentive related adjustments shall be independent of the Fuel and Lubricant costs reconciliation clause as described in later section in this order.

Funds for electricity-related projects

Commission believes there is a great need to increase access to electricity in rural and outlying areas in Vanuatu. To meet the targets under the National Energy Road Map (NERM), the Commission must take extra efforts to extend and improve service to all the communities. The funds needed to maximize access to electricity services in Santo are great with large un-electrified areas. The amount provisioned in the tariff for new installations is a limiting factor as expressed by the customers. Therefore, the Commission proposes to establish a Fund and require all customers to contribute towards electricity related projects in order to achieve these goals. The projects may include extensions of existing electricity network or standalone systems to be developed in Santo. The payment of energy bills on behalf of public institutions or individuals is excluded from the scope of the Fund.

During the public consultation, Staff received positive remarks from the public and the utility in this regard. The public expressed willingness to contribute to the Fund through the tariff. They voiced concerns regarding political interference in management of such fund citing previous experience with Sarakata Fund.

The Staff recommended that the fund be managed by a Fund Committee, comprising the URA, VUI, the Luganville Municipal Council, and the Department of Energy. This Committee will evaluate and prioritize project proposals and submit to the Commission for approval. The Committee will direct VUI to allocate the funds to the approved projects. VUI will submit quarterly reports to the Committee on status of the Fund and project updates. The URA will order an annual independent audit of the Fund and ensure proper record keeping is put in place. Fund Management procedures will be developed by the Committee. Commission received support from the Director of Energy and agreed to serve on the Committee.

The Commission adopts establishment of the Fund. VUI shall collect VUV 1.00 per unit of base rate "P" billed to its customers on a monthly basis and is embedded in the tariffs. From Staff analysis, the impact on the tariff is an increase of 2.17%. VUI shall deposit in the Fund VUV 1.00 for each kWh it bills. Commission recognizes the additional burden on VUI customers but believes that having such a fund will greatly maximize access and improve quality of electricity services in Santo.

Following table shows the customer contribution to the fund:

Table 3: Customer contribution to the fund	Table 3:	Customer	contribution	to	the fund	
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Customer category	Charge	Customer contribution to the fund
Low Voltage (including small domestic, business license holders, and other low voltage customers)	Unit charge per kWh Up to 60 kWh 61-120 kWh 121-180 kWh Over 180 kWh	0.38 VUV per kWh 0.97 VUV per kWh 1.80 VUV per kWh 1.10 VUV per kWh
Sports Fields	Unit charge per kWh	1.00 VUV per kWh
High Voltage	Unit charge	0.70 VUV per kWh
	Monthly fixed charge	25 VUV per subscribed kVA

The following examples illustrate the contribution from the customer to the Fund.

• E.g.1: For a domestic customer using 200kWh per month:

Item	# of units	Retail tariff rate in P	Contribution in VUV
Monthly Fixed Charge		None	
Electricity consumed in 1st Tranche 0-60 kWh	60	0.38	22.8
Electricity consumed in 2 nd Tranche 60- 120 kWh	60	0.97	58.2
Electricity consumed in 3 rd Tranche 120- 180 kWh	60	1.80	108
Electricity consumed in 4 th Tranche >180 kWh	20	1.10	22
Total Customer co	ntribution to th	e fund in VUV	211

Utilities Regulatory Authority, U-0001-14 Final Decision and Order, March 2014 Page 11 • E.g.2: For a high-voltage customer using 10000kWh per month on 33kVA connection:

Item	# of units	Retail tariff rate in P	Contribution in VUV
Monthly Fixed Charge	33	25	825
Electricity consumed	10,000	0.70	7000
Total Custo	7,825		

Request for lower electricity rate in Fanafo

During the public consultations the Fanafo Community requested that they should be charged a lower rate as a compensation for building Sarakata Hydro facility on their land.

In Staff consultations with VUI, it became apparent that most of the customers in the Fanafo Community are in the small domestic customer category with average monthly consumption of less than 60 kWh. This customer category is already largely subsidised through a cross subsidised tariff structure with low-use customers only paying 38% of the actual cost of service. Further with the implementation of the Global Partnership Output Based Aid (GPOBA) subsidy soon to be implemented, people in Fanafo who are not yet connected to the grid will have subsidised connections to access to electricity and shall reap benefits of the hydro facility and current subsidized tariff structure.

Commission understands the basis of the Fanafo Community's request. However, Commission believes that it is neither desirable nor practical to design tariffs on a community by community basis. Benefits of hydro generation should be shared with all residents of Santo, just as all customers are required to contribute to improve services in low income and rural communities through the hereby established Fund. Projects improving electricity services to the Fanafo community may be covered by the Fund.

Provision for bad debts

The provisions for bad debts included in the Preliminary Decision were challenged by VUI. VUI provided additional information and requested the allowance for bad debts be increased in the Final Decision.

As VUI has indicated, the bulk of the bad debts are resulting from non payment for street lighting services by the Municipal Council. The Commission decision to transfer the street lighting responsibility to VUI largely removes the issue of bad debts. Commission believes it is the responsibility of the Utility to take appropriate measures to recover payments from all the customers and minimise the bad debts. Therefore the Commission considers the issue resolved and 0.5% allowance for bad debts is reasonable as proposed in the Preliminary Decision. Commission accepts the Staff recommendation of including VUV 1,800,000 as Bad Debt allowance for 2014.

Adjustment for Demand Weighting Coefficient (DWC)

In the Preliminary Decision, the Staff highlighted the distortion in revenue collection caused by the current retail tariff structure. As a result of the tariff structure, the calculated new tariffs when applied to the billing kWh for each customer category does not produce the required revenues for VUI. This distortion is rectified by computing the Demand Weighting Coefficient (DWC). In its initial recommendation, staff calculated a DWC of 0.92 by comparing the required revenues to the collected revenues for historic period. As the bad debt issue has been separately resolved, the Staff is recommending revising the DWC by utilizing the billed revenues rather than the collected revenues. The Staff recommends slight adjustment to the DWC to 0.929 from 0.926. The Commission accepts the staff approach and adjustment as it creates an incentive for VUI to improve its collection efforts. This adjustment causes the tariff to further decrease by 0.24%. The DWC's are modified as follows:

Item	2011	2012	2013	2014
(original) Demand Weighting Coefficient	0.917	0.905	0.954	0.926
(new) Demand Weighting Coefficient	0.921	0.908	0.959	0.929
Impact on Proposed Base rate in VUV	-0.11 VUV			

Table 4: Demand weighting coefficient adjustment

Uniform tariff across concessions and operators

UNELCO, the operator of Port Vila, Malekula and Tanna electricity systems was the previous electricity concessionaire in Santo. At the time UNELCO was operating in Santo, there was a uniform tariff in all four concessions. In January 2011 the Government transferred Santo operations to VUI. UNELCO has submitted a letter to the Commission in response to the Preliminary Decision in case U-0001-14.

UNELCO has stated that electricity tariffs should be uniform across all regions of Vanuatu and that the URA should not approve separate tariffs for Luganville. In its reasoning UNELCO contends that; a) Sarakata hydro was donated as a gift by Japanese government for the benefit of all citizens of Vanuatu, just as they all benefit from Wind farm in Efate, b) URA had proposed a uniform tariff as a policy in its May 2010 Decision, c) non-uniform tariffs would dramatically increase electricity prices in the other three concessions and have disastrous impact on consumers of Vanuatu, especially in Tanna and Malekula, and that with non-uniform tariffs development in rural areas will become impossible.

The Commission responds to UNELCO submission as follows. URA has never adopted uniform tariffs as its policy, nor does the Act mandate such a policy. Uniform tariffs are neither practical nor realistic when applied across different operators. First such a policy removes any incentives from the operator to make efforts to reduce its costs and operate in least cost mode since the benefits and credit is shared by a non-performing operator. Moreover it will create a system of financial transactions where all costs will be pooled monthly by nonrelated operators to equalize their tariffs disregarding their actual costs of service. This violates the fundamental ratemaking principle of cost-based tariffs and incentive regulation.

Regarding the claimed dramatic and disastrous effects of non-uniform tariffs, Commission is not persuaded of the same. Contrary to the UNELCO's assertion, a separate tariff for VUI customers will not result in a tariff increase for the customers of UNELCO. The current tariff charged to UNELCO's customers was established in 2010 on the basis of the Sarakata agreement that imputed diesel cost-equivalent to all hydro energy output. The current price paid by UNELCO customers does not reflect any hydro savings. Therefore any change in VUI base rate will not increase the tariffs to UNELCO customers.

If the proposed rate reduction of approximately 15.7% was to be spread across all concessions, the net reduction in Port Vila base rate for example, would be less than 1.5%. Similarly will be the case in Tanna and Malekula since UNELCO is not proposing that Luganville rate reductions should only be shared with these two concessions. As far as for rural development within UNELCO's concessions, Art.6 fund is established solely for that purpose.

As for sharing of hydro and wind farms, Commission states that the hydro benefits have been shared with all consumers of Vanuatu for over 17 years between 1993- 2010. Commission also notes that the proposed VUI tariffs do not include generation from Wind Farm in Efate.

Therefore the Commission rejects the proposal by UNELCO to equalize tariffs of VUI and UNELCO.

Annual generation cost reconciliation

In its Preliminary Decision, the Commission adopted the Staff proposal to replace the monthly base rate adjustment mechanism by an annual reconciliation of generation costs. As a result, the base rate shall remain uniform throughout the year, while the power company may temporarily absorb any month to month diesel price fluctuation.

The base rate includes the cost of fuel and lubricant used for generation. The calculation of base fuel price with an energy mix comprised of hydro and diesel generators is based on a) the total kWh generation required, b) the capacity factor of hydro generation, c) the cost for fuel and lubricant expressed in VUV per kWh and d) the losses in generation and distribution. Assumptions of these factors were utilised in deriving the base cost of generation. The method to arrive at these assumptions is explained as follows:

Power sales forecast and generation requirement

As indicated in the Staff report, the sales for 2014 were projected at 8,165,347 kWh. This is based on actual data for 2010-2013 and an assumed growth rate of 3%. The losses for generation and distribution were assumed at 12.5% of generation requirements. This resulted in generation requirement of 9,327,276 kWh.

Generation mix and efficiency

Hydro generation is expected to contribute 7,300,000 kWh assuming operating capacity at 69% of its maximum output. The thermal generation will contribute to balance the generation requirement at 2,027,276 kWh.

Fuel and lubricant cost

Based on the current energy mix, fuel and lubricant are consumables used in the process of power generation. The base rate set by the Commission in its final decision is accounting for VUV 64,074,343 for fuel and lubricant expenses, and a total of 9,327,276kWh generated. The cost of fuel and lubricant expensed by VUI in 2013 totalled VUV 55,976,812 for 9,055,301 kWh generated, or 6.18 VUV/kWh. However assuming increase in demand in 2014, the additional generation required will be met by diesel generation. This increases the average fuel and lubricant cost to 6.86 VUV/kWh in 2014. This is the base generation cost to be used for reconciliation.

Fuel and lubricant annual reconciliation

During the annual reconciliation, VUI should submit actual technical and financial data on generation for the previous 12 months. In order to keep the fuel and lubricant costs comparable year on year, and in line with the Commission's proposal to create incentive for generation efficiency improvement as described in the "Man-month fee" section, the amount associated with fuel and lubricant expenses recorded through the year will be multiplied by an efficiency adjustment coefficient used for reconciliation purposes. The following formula will apply to calculate the adjusted average cost for fuel and lubricant per kWh:

$$FLa = \frac{FL \times \frac{Rh}{Th}}{G}$$

Where

FLa = Calculated fuel and lubricant adjusted base generation cost/kWh;

FL = Fuel and Lubricant expenses over 12 months*;

Rh = Actual hydro contribution in % of total energy generated

Th = Assumed hydro contribution as % of total energy generated in the last rate case

G = Total kWh generated over last 12 months.

*adjusted from litres of fuel and lubricant in stock at the end of the period. Stocks are valued at weighted average purchasing price.

The adjusted average cost for fuel and lubricant calculated will then be compared to the estimated cost factored into the tariff in place for the previous 12 months. If the difference exceeds +/-5% of the base generation cost assumed in this case, the Commission shall revise the tariff accordingly.

Other operating costs review

The Commission directs the Staff that, at the time of annual reconciliation, the following operating costs estimates used in this case will be reviewed against the actual expenses. Should a substantial gap be the result of unspent budget allocated or any additional costs, these will be discussed on a case by case with VUI. The URA Commission may take appropriate actions to adjust the cost allocations for the following year.

Table 5: Summary of Revenue Requirements, in VUV

Item	2014
Labour	119,140,214
Man Month Fee	57,000,000
Fuel and lubricant	64,074,343
Repair & Renewal Fund/Provisions	33,105,994
Goods and Other Cost	45,065,453
Depreciation Expense	2,914,239
Insurance	18,000,000
New Installation Materials	15,000,000
Provisions for bad debt	1,800,000
Total cost of service	356,100,243*

*Additional cost of VUV 6, 096,000 per year is to be assumed by VUI for Street Lighting service.

Final base rate

The table below summarizes the derivation of final tariff.

Table 6: Final base rate calculation

Item	2014
Preliminary Decision base rate, VUV/kWh	46.17
Adjustment for bad debt VUV/kWh	-0.11
Contribution to Fund for Electricity Related Projects VUV/kWh	1.00
Final tariff base rate, VUV/kWh	47.07
December 2013 base rate, VUV/kWh	54.76
Base rate reduction in VUV/kWh	- 7.7
Base rate reduction	- 14.06%
Avoided cost for street lighting, VUV/kWh	0.76
Additional benefit to customers	-1.70%
Overall benefit to customers	-15.76%

Commission adopts the Final Decision to set VUI base tariff at 47.07 VUV/kWh, which includes the 1 VUV/kWh billed for contribution to the Fund for Electricity Related Projects.

This is a reduction of 14.06% from December 2013 tariffs. Commission chose the December 2013 base rate for comparison in order to be consistent with the Preliminary Decision. The reduction will be applied to all customer tariffs across the board.

With VUI assuming the cost for street lighting, the overall benefit to customers is equivalent to a reduction of 15.76% based on December 2013 tariffs.

Final Customer tariff structure

The Commission adopts the following tariff structure based on the new base rate.

Table 7: Comparison of customer charges

Customer category	Charge	Tariff of Dec-2013	New Tariff	Change
Low Voltage (including small domestic, business license holders, and other low voltage	Unit charge per kWh Up to 60 kWh 61-120 kWh 121-180 kWh Over 180 kWh	20.81 vatu per kWh 53.12 vatu per kWh 98.57 vatu per kWh 60.24 vatu per kWh	17.88 vatu per kWh 45.64 vatu per kWh 84.71 vatu per kWh 51.77 vatu per kWh	-14.06% -14.06% -14.06% -14.06%
customers)	Monthly fixed charge	None	None	None
	Security deposit for new connections	3,833 vatu for connections up to 2.2kVA 8,214 vatu per subscribed kVA for connections over 2.2 kVA	3,294 vatu for connections up to 2.2kVA 7,059 vatu per subscribed kVA for connections over 2.2 kVA	-14.06%
Sports Fields	Unit charge per kWh	54.76 vatu per kWh	47.06 vatu per kWh	-14.06%
	Monthly fixed charge	None	None	None
		None		
Public Lighting	Unit charge per kWh	29.57 vatu per kWh	25.41 vatu per kWh	-14.06%
	Monthly fixed charge	None	None	None
	Security deposit for new connections	None	None	None
High Voltage	Unit charge	38.33 vatu per kWh	32.94 vatu per kWh	-14.06%
	Monthly fixed charge	1,369 vatu per subscribed kVA	1,176 vatu per subscribed kVA	-14.06%
	Security deposit for new connections	8,214 vatu per subscribed kVA	7,059 vatu per subscribed kVA	-14.06%

3. Final Commission Order

The Commission therefore orders that:

- Base tariff for VUI is reduced by 14.06% from the December 2013 level of 54.76 to 47.07 VUV/kWh
- Tariffs for customers of VUI are revised as shown in Table 7
- VUI shall assume responsibility for street lighting operations and maintenance in its service area
- The current monthly cost adjustment mechanism is abolished and replaced with an annual reconciliation as explained in this Order
- An incentive mechanism based on Sarakata hydro capacity factor shall be implemented as explained in this Order
- VUI shall establish a Fund for Electricity Related Projects as directed in this Order. The Fund shall be supervised by the URA in cooperation with the Fund Committee
- VUI shall deposit 1 VUV in the Fund for each kWh billed monthly
- The revised tariff shall become effective on the date this Order is signed
- The revised tariff shall apply to all customer billings rendered after the date of this Order
- VUI is directed to indicate on its customer billings that their tariffs are approved by the URA.

4. Notice of Grievance

If VUI is aggrieved by this Order, it may request the Commission to reconsider the decision on issues aggrieved upon. A Notice of Grievance should be submitted within 30 days of the Order. 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
- A detailed description of any relevant change in facts or circumstances since the Final Order

Notice of Grievance can be received until 13 April 2014 and addressed to the Commission.

Notice may be:

- delivered in person at the Office of the Utilities Regulatory Authority VNPF Compound Corner Pierre Lamy & Andre Ballande Street Port Vila, Vanuatu
- mailed to Case U-0001-14 Utilities Regulatory Authority P.M.B 9093 Port Vila Vanuatu
- or emailed to Hasso Bhatia, *PhD Chief Executive Officer* Utilities Regulatory Authority <u>hbhatia@ura.gov.vu</u>

If the Commission receives a timely Notice of Grievance, it will conduct a review based on established procedures. If upon review the Commission determines that the grievance is justified, then it shall revoke, amend or vary the decision on the matter complained of.

5. Execution Page

Commission Order is effective on the date this Order is signed.

CEO and Commissioner Chairman Hasso C. Bhatia, PhD Johnson Naviti Matarulapa Marakipule ATC The 2 Millipe ES Common Seal of Date Date +

Seal of the Utilities Regulatory Authority



Utilities Regulatory Authority

Vanuatu

You can access the Case U-0001-14 Final Decision and Order of March 2014 on our website <u>www.ura.gov.vu</u>; or by contacting us by telephone (+678) 23335, email: <u>breuben@ura.gov.vu</u> or regular mail at Case U-0001-14 Utilities Regulatory Authority, PMB 9093, Port Vila, Vanuatu.

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