



Final Decision and Commission Order

Case U-0013-14

**In the matter of investigating and implementing a Business
Development Incentive electricity tariff for UNELCO in
Efate**

December 2014

Foreword

The Utilities Regulatory Authority (URA) Commission is pleased to issue this Final Decision and Order implementing a Business Development Incentive electricity tariff for UNELCO in Efate (case U-0013-14). Pursuant to its Preliminary Decision in July 2014, Commission staff held public consultations and received valuable comments from several interested persons. Many of the suggestions have been incorporated in this Order.

The electricity network in Vanuatu, and in particular in Port Vila and the surrounding area, has seen little growth in recent years while there is significant unused generation capacity in the UNELCO system. The issue of excess capacity was raised by the URA Commission with UNELCO in its last tariff Decision in 2010¹. An efficient and prudently-run utility company should be expected to make efforts to clear this capacity and stimulate growth. No such action has been taken. The Commission called upon the URA staff to perform an analysis of the current unused capacity and develop recommendations to efficiently utilize generation capacity. The staff has recommended the Business Development Incentive (BDI) tariff that offers an attractive price for incremental use, which covers all UNELCO's out-of-pocket marginal costs. Today the Commission is adopting the Business Development Incentive tariff for the Port Vila electricity concession.

The BDI tariff implemented by this order does not reduce UNELCO's revenues or profits, and in the long-run will provide lower prices for all customers. This program is not discriminatory as it is available to all customers who meet the eligibility criteria. This Order is also consistent with Vanuatu Government initiatives to make Vanuatu a more attractive destination for businesses and industry, such as the National Trade Policy Framework, and contribute to lowering the cost of doing business in Port Vila.

We urge the Government, UNELCO and all interested persons to support the Decision and its implementation.

Johnson Naviti, Chairman

Hasso Bhatia, *PbD*, CEO and Commissioner

John Alilee, Executive Commissioner

¹ Utilities Regulatory Authority Electricity Tariff Review Final Decision May 2010, section 4.12.1.

1. Introduction

1.1 Case information

Table 1: Case information

Case number	U-0013-14
Applicant	Utilities Regulatory Authority
In the matter of	Investigating and implementing a Business Development Incentive electricity tariff for UNELCO in Efate
Commencement date	28 th April 2014
Date of Preliminary Decision	8 th July 2014
Date of Final Order	5 th December 2014

1.2 Purpose of this document

This document sets out the Final Decision and Commission Order in the matter of investigating and implementing a Business Development Incentive electricity tariff for UNELCO in Efate (URA case U-0013-14). This Commission Order is the formal order to Union Electrique du Vanuatu Ltd. (UNELCO) to carry out the necessary actions to implement the provisions described in this Order. It lays out in detail the background and considerations supporting the Commission's decision, including many useful responses to submissions received during the consultation process.

1.3 Background

The electricity network in Efate has suffered from a severe slow-down in demand growth since 2010. Growth in electricity demand is a key driver of network efficiencies. As demand grows there are further economies of scale, which can then translate into lower unit prices. The slow-down in growth in the Efate electricity network creates a significant constraint on efficiency improvements and lowering of prices.

The high cost of electricity in Vanuatu has been identified by the Government (set out in the National Trade Policy Framework) as a potential barrier to economic growth. By offering a reduced tariff for new business and industrial customers, this potential barrier can be lowered. The additional load and consumption from this tariff program will increase the utilization of existing capacity, which over the longer term will accelerate the requirement for investment in new, potentially more efficient, generation equipment. This in turn will accelerate reductions in the cost of electricity generation, which will result in lowering of tariffs for all. With greater utilization of the network, fixed costs will also eventually come down. This program is consistent with other Government initiatives to increase economic growth in Vanuatu, such as the National Trade Policy Framework and the aims of National Energy Road Map.

Against this context, in July 2014 the URA issued a Preliminary Decision describing a new Business Development Incentive (BDI) tariff intended to stimulate electricity demand growth by offering a significant

discount for incremental network load. The Preliminary Decision was shared publicly and submissions received from many interested persons. Subsequent follow-up meetings were held with UNELCO, the Vanuatu Chamber of Commerce and Industry (VCCI), the Vanuatu Investment Promotion Authority (VIPA) and the Department of Trade, and a survey was carried out of VCCI members. This feedback has enabled the URA to refine and improve its design for a BDI tariff.

1.4 Case chronology

Table 2: Case chronology

Date	Activity
28 th April 2014	Case opened
May to June 2014	Initial review and analysis
8 th July 2014	Preliminary Decision and Notice of Request for Comments and Public Consultation released, with accompanying Staff Report
22 nd July 2014	Preliminary Decision public briefing at MSG conference room in Port Vila
8 th August	Deadline for written submissions to the Preliminary Decision
August to September 2013	Further analysis, and follow-up meetings with UNELCO, VCCI, VIPA. Survey of VCCI members.
5 th December 2014	Date of Final Order

1.5 Legal context

The legislation governing the generation, supply and sale of electricity in Efate is established by the Electricity Supply Act, the Utilities Regulatory Authority Act and the Concession contract for the Generation and Public Supply of Electric Power in Port Vila between the Government of Vanuatu and UNELCO.

The legal basis of this order is described in more detail in Section 4.

2. Tariff parameters

2.1 Business Development Incentive (BDI) Tariff

The BDI tariff rate shall be:

Customer category	Standard tariff rate	Proposed tariff schedule	Avg. discount
Commercial	Fixed charge = 20 x P per kVA (1,081 vatu) Unit charge = 0.87 x P per kWh (47 vatu)	Fixed charge = 713 vatu per kVA per month (not indexed) Energy charge = 30 vatu per kWh (indexed to fuel cost)	36%
High Voltage	Fixed charge = 25 x P per kVA (1,352 vatu) Unit charge = 0.7 x P per kWh (38 vatu)	Fixed charge = 713 vatu per kVA per month (not indexed) Energy charge = 29 vatu per kWh (indexed to fuel cost)	26%

P = 54.06 vatu as of September 2014

Assumed power factor = 80%. High Voltage customers are subject to additional charges if their power factor is below 80%.

2.2 Fuel price adjustment

The energy charge in the BDI tariff will be subject to a monthly adjustment for changes in the cost of diesel fuel. The average landed price of fuel in Port Vila in September 2014 was 109.17 vatu per litre. The energy charge will be adjusted up or down by the same proportion as the landed price of fuel in Port Vila varies from the September 2014 fuel price.

2.3 Eligibility

Eligibility for the discounted tariff shall be restricted to new customers and incremental consumption of existing consumers. If existing consumption is allowed to switch to the BDI tariff, the loss of revenues shall have to be made up by raising all tariffs, thus negating the effect of the proposal. Therefore strict eligibility criteria must be set that will be verified prior to approval of the BDI tariff for a customer. This tariff is only applicable for the network in Efate.

2.3.1 New customers

If the customer is a new connection, the customer will still bear the normal cost of connection and any necessary network extension. The application will be cross-checked against recent disconnections and reductions of subscription to ensure that customers are not simply shutting down one connection to open another in order to benefit from the BDI tariff.

2.3.2 Existing customers

An existing customer that wishes to increase their load can benefit from the BDI tariff, but only for the incremental subscription and consumption. If the incremental subscription is supplied through a separate meter, then the BDI tariff will apply only to the new meter. If the incremental load is supplied through an existing meter, then the BDI tariff will apply only to the additional subscribed load, and only to consumption greater than the average consumption of the previous 12 months from the first billing month under the new tariff. If the customer has previously reduced their load, then the standard tariff will be applied up to the maximum load for the customer in the last 12 months. This is to avoid customers requesting reductions in load, only then to request increases using the BDI tariff.

2.3.3 Minimum new load

In order to be eligible for the BDI tariff, the new or increased load must be at least 9.9kVA (equivalent to a 15amp three-phase connection or greater).

2.4 Curtailment provision

In order to address concerns around the level of excess generation capacity, customers that opt for the BDI tariff must agree to a curtailment provision in the case of extreme and unusual circumstances requiring network load shedding due to insufficient generation or network constraints. The issue of network capacity is discussed in further detail in Section 3 of this Order.

2.5 Maximum capacity

Initially, the amount of total incremental capacity made available for this tariff will be restricted to 3,000 kW connected load, and the impact on system peak demand will be monitored. A periodic review of peak demand in consultation with UNELCO will determine whether any further increases of BDI subscriptions should be allowed.

2.6 Term of availability

A customer shall remain on the BDI tariff and benefit from this discounted tariff for five years, after which they will revert to the standard tariff for their customer category. UNELCO will establish a cross-checking process to ensure that customers do not circumvent this limit by terminating and re-opening connections for the same load.

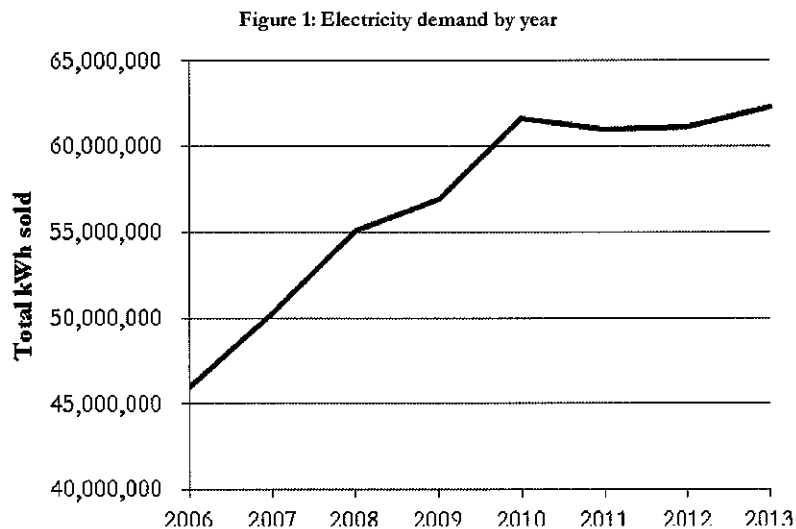
3. Tariff considerations

The criteria for the design of the BDI tariff are that it:

- Stimulates system growth
- Maintains system reliability
- Improves the utility's ability to recover its prudently incurred costs and profit margins

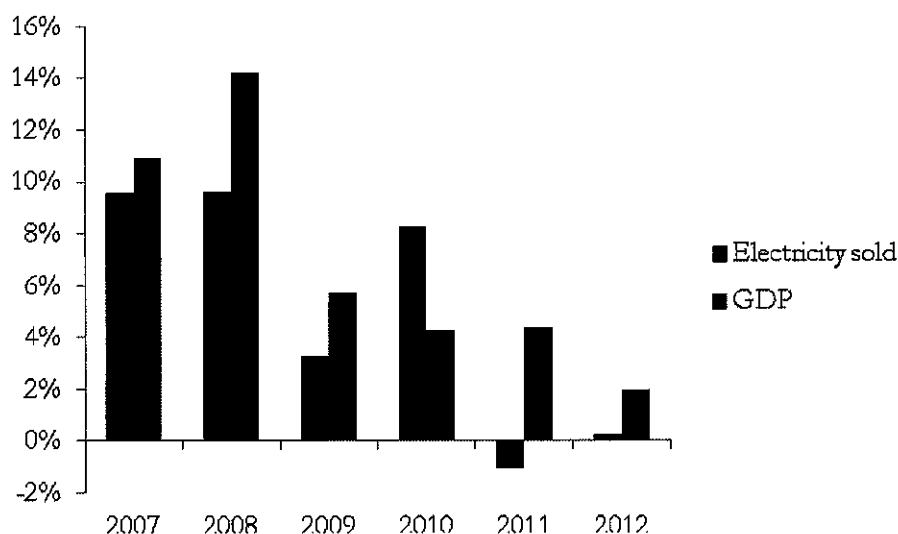
3.1 Growth stimulation

The rate of demand growth is a key factor in driving long-run efficiency improvements in the Efate electricity network, as it drives the rate at which additional and more efficient generation units are required. Electricity growth has slowed dramatically since 2010. Over the years 2006 to 2010, electricity demand in kWh increased by an average of 7.65% per year. Since 2010, demand growth has been static, with only 0.34% growth per year.



Part of this reduction in growth may be related to a slowing of economic growth in general since 2008. However, since 2010 the Vanuatu economy has been growing at an average rate of 3.17%, which is much higher than electricity growth over the same period.

Figure 2: Comparison of GDP growth and electricity demand growth



As electricity demand grows, the fixed costs of the network are spread across more customers and energy sold, which over time results in lower tariffs. Slow growth rates restrict this and have the opposite effect, meaning that tariffs remain high. Unfortunately nothing has been done over this period to attract new growth.

As the aim of the BDI tariff is to stimulate an increase in the growth rate, the discount must be significant enough to influence business decisions to the extent that it creates greater electricity demand. The results of a survey undertaken by URA staff (results shown in Section 5) indicate that a discount of at least 20% would be required to have an influence on investment decisions.

It is part of the normal operations of a utility that new customers join, change their subscriptions and terminate agreements (for example, in 2013 four new commercial customers subscribed per month on average). This customer churn will likely be impacted by the BDI program, the aim being to create a net increase in total customer demand. In addition, the following safeguards are included in the program:

- Available only to businesses
- Minimum incremental load of 9.9kVA
- Checks against previous disconnections or load reductions by the same customer.

3.2 Network reliability

In order to guarantee the reliable supply of electricity, generation capacity should exceed the maximum simultaneous demand (system peak demand) by a certain reserve margin. This reserve margin or buffer depends on the size and type of system.

As demand increases, peak demand may also increase, which reduces the level of available reserve margin. If, however, there is sufficient generation capacity already installed to absorb an increase in demand and still maintain reasonable reserve margins, then there is no immediate impact on reliability from incremental demand.

The table below shows the capacity of diesel generators currently installed on the Efate network.

Table 3: Nominal capacity of diesel generators on Efate network

Diesel generator	Nominal capacity, kW
GR 1 tagabe	4,000
GR 2 tagabe	4,000
GR 6*	1,400
GR 7*	1,400
GR 8	2,170
GR 9	2,170
GR 10	1,258
GR 11	1,258
GR 12	1,258
GR 13	1,258
GR Rapides	3,200
Total	23,372

* UNELCO have indicated that generators GR 6 and 7 are nearing the end of their useful life and will be replaced in 2015.

The maximum simultaneous demand on the electricity network is referred to as “system peak load”. The monthly peak load of the Efate network in 2013 is shown in the table below.

Table 4: Peak load by month

Month	Peak load, kW
January 2013	10,810
February 2013	10,659
March 2013	11,040
April 2013	11,072
May 2013	10,020
June 2013	9,970
July 2013	9,620
August 2013	9,370
September 2013	9,760
October 2013	9,690
November 2013	11,055

December 2013	11,162
Maximum winter	10,020
Maximum summer	11,162

UNELCO uses an “N-2” reserve margin standard, which means there should be sufficient reserve margin to meet maximum demand in case of failure of the two largest machines. While a simultaneous failure is unlikely to occur, this standard is intended to protect supply if one of the two largest machines is undergoing maintenance or is out of order and awaiting replacement parts. This standard is more conservative than that used in many other countries, which is to ensure reserve margin is greater than the largest machine plus a percentage of peak demand. Large integrated systems in developed countries use Loss of Load Probability approach such as ‘once in ten years’ or LOLH in planning the reserve margins, which typically results in 10%-12% reserve margin required over and above the peak load.. “Excess capacity” is defined as the amount by which peak demand could increase from forecasted levels while still retaining sufficient reserve margin to support the probable aggregated loss of generation machines. The table below shows the calculation of excess capacity using different assumptions based on an N-2 standard.

Table 5: Analysis of excess capacity

Assumptions	Gross Reserve margin, kW	Excess capacity, kW
Total capacity = 23,372 kW (total) Peak demand = 10,020 kW (winter)	13,352	5,352
Total capacity = 23,372 kW (total) Peak demand = 11,162 kW (summer)	12,210	4,210
Total capacity = 20,572 kW (excl. 6 & 7) Peak demand = 10,020 kW (winter)	10,552	2,552
Total capacity = 20,572 kW (excl. 6 & 7) Peak demand = 11,162 kW (summer)	9,410	1,410

Source: UNELCO Regulatory Reporting submission 2014

In addition to the diesel capacity described above, the following generation capacity is installed or planned to be installed over the next 12 months:

- 3 MW wind turbines (to be expanded to 4MW)
 - 1-1.5MW EU co-funded solar plant (planned for 2015)
 - 500kW UAE-funded rooftop solar plant (planned for 2015)
- There is also potential for 4 MW Geo-Thermal power not included in this analysis

These generation sources are intermittent and so must be supported by dispatchable (i.e. diesel) capacity. This additional capacity does, however, mean that the reserve diesel capacity will be less utilised and so available to be used by BDI customers.

Adding incremental load does not necessarily increase peak demand by the same amount due to the diversity in electricity use patterns. For example, the total current subscribed power for all customers is more than

50MW, yet peak demand is less than 25% of that amount. It is likely, however, that larger commercial customers will use a greater proportion of their total subscription, particularly during peak hours.

In the Electricity Tariff Review Final Decision May 2010, the Commission noted *“that the current network capacity is much higher than peak demand, and the investment plan includes further investment to increase capacity. There are also separate plans under discussion around the addition of solar and geothermal capacity into the network. There is therefore a risk of an inefficient level of assets in Port Vila”*². The then current investments were however recognized in computing the consumer tariffs presently in effect. An efficient and prudently-run utility company should be expected to make efforts to clear this capacity and stimulate growth. To date, the URA is not aware of any action taken by UNELCO to utilise this excess capacity to stimulate growth and contain costs.

Given the evidence presented above, it is the opinion of the Commission that incremental subscriptions of 3MW will not significantly increase the risk of impairment to system reliability. As an additional precaution in case of extreme circumstances where load-shedding may be necessary, BDI tariff customers will be subject to a higher curtailment provision. This means that if the situation arises where system demand exceeds available capacity, BDI customers will be those whose supply is suspended first. The Commission’s view is that this is highly unlikely given the level of excess capacity but nevertheless a necessary provision in the BDI tariff.

3.3 Cost Analysis

The marginal cost of energy is the cost of providing one extra kWh. If incremental energy sold is priced at marginal cost, including marginal system losses, then the utility shall be able to recover its incremental costs. The BDI tariff is designed to ensure that the marginal cost of providing incremental energy is covered and that the utility does not suffer a loss in serving such a customer.

In order to calculate the marginal cost of energy, the impact on the utility costs of generating incremental energy must be estimated. The calculation of marginal cost depends on the time frame assumed for the incremental generation. For the purposes of this program, a time scale of five years will be assumed, as this is the normal tariff review cycle.

The immediate cost of providing an incremental kWh of energy is the cost of fuel used to generate electricity. While there are some renewable energy sources used to generate electricity in Efate (3.025MW wind and 87kW solar), it is assumed conservatively that any incremental energy is produced using diesel fuel (coconut oil is assumed to be equivalent to diesel for the purposes of this estimation). The average generation efficiency of the diesel generators in Efate is 252.43ml/kWh. The price of diesel fuel landed in Port Vila in September 2014 is 109.17 vatu per litre. System losses are on average 2.22% for transmission and 3.48% for distribution. Losses for supplying a High Voltage customer are assumed to include only transmission, while for a Low Voltage customer transmission and distribution losses are included. The table below shows the calculation of marginal fuel costs.

² Utilities Regulatory Authority Electricity Tariff Review Final Decision May 2010, section 4.12.1.

Table 6: Calculation of marginal fuel cost

Customer type	Generation efficiency, ml/kWh	Diesel price, vatu/litre	System losses	Marginal fuel cost, vatu/kWh
Commercial	252.43	109.17	5.70%	30
High Voltage	252.43	109.17	2.22%	29

Other operational costs that vary with the amount of power generated or consumed include the cost of lubrication oil and any other maintenance costs. In the last tariff review in 2010, data provided by UNELCO showed the cost of lubrication oil as less than 0.3 vatu per kWh. For the purposes of this estimation, these incremental costs are assumed to be negligible.

Over the medium-term, an increase in demand may impact the required generation capacity. Also to ensure efficiency and reliability (as generation equipment gets older it requires more maintenance and there may be more frequent breakdowns), there is need for replacement of older inefficient machines with more efficient ones and therefore for new investment. The maximum possible level of this cost is if every kW of subscription contributed to an additional kW of peak load, and generation capacity must be increased by the same amount. The annual cost of the investment required is levelized over the expected life of new generation capacity. The calculation of this maximum cost is shown in the table below.

Table 7: Estimation of marginal cost of incremental generation capacity

Metric	Value
Average cost of diesel generation plant per kW installed ¹	72,750 vatu
Expected useful life of generation plant	25 years
Annual depreciation cost	2,910 vatu
Weighted Average Cost of Capital ²	7.76%
Annual cost of capital	5,645 vatu
Equivalent monthly cost per kW	713 vatu

1. Source: Study of Equipment Prices in the power Sector, ESMAP Technical Paper, D Pauschert. Top end of cost range taken of diesel plant 1-5MW, plus 25%.
2. Taken as equal to Weighted Average Cost of Capital used in the last electricity tariff review

It is also possible that an increase in demand may require investment in network strengthening. UNELCO have indicated that there is sufficient capacity in the network, and suitable existing plans to expand and strengthen it. For the purposes of the BDI tariff, no additional network costs are likely to occur and therefore have not been included.

Investment in generation and network capacity is “lumpy”, meaning that it is characterised as periodic, large investments. This means that the actual cost to the utility will depend on the stage of the investment cycle. Levelising these costs provides a reasonable estimate on the average cost to the utility, and pricing at this level enables the utility to fully recover the incremental cost of supplying BDI customers including a large portion of the incremental fixed costs.

By setting the BDI tariff where the energy charge is equal to the fuel cost, and a monthly fixed charge equal to the maximum monthly equivalent incremental generation cost, the financial impact of the BDI program on the utility company is neutral in the worst case. In addition, there is a maximum cap on BDI subscriptions.

3.4 Program eligibility and checks

This incentive tariff is available to commercial and high voltage customers who create new load. This can be a completely new business seeking connection, or increasing the subscription of an existing business connection. In order to focus on incremental demand rather than natural “churn”, the new load must be at least 9.9kW (equivalent to a 15A three phase connection). Applications will be cross-checked against recently reduced or closed connections in order to prevent customers transferring existing load onto the BDI tariff. Once the new load becomes active, the BDI tariff will apply for 5 years, after which the load will revert to the relevant standard tariff.

There will be a maximum limit of 3,000kW of new load that is available for the BDI tariff. This is to protect the utility from any extreme increases in system load that could be detrimental to the continued safety and reliability of the network. There will be an annual review of the program to determine how much incremental load has been created and new capacity has been installed, and to decide whether to continue the program. This will be done in consultation with UNELCO. However customers once on the BDI will continue to enjoy the tariff for five years.

4. Power of URA to implement program

As part of UNELCO's submission to URA in this matter, the power of the URA to implement this program has been questioned. To clarify that the Commission has the power, this section discusses at some length the legal basis of this Decision requiring UNELCO to implement this program.

4.1 Powers and Functions under the URA Act

Under the Utilities Regulatory Authority Act (**URA Act**) the URA is mandated to ensure the provision of safe, reliable and affordable regulated services, maximize access to regulated services throughout Vanuatu and promote the long term interests of consumers (Section 2 of the URA Act). Additionally one of the primary functions of the URA is to exercise the functions and powers conferred by the URA Act or by any other Act in furtherance of the purposes of the URA Act (Section 12(1)(a)). Further, the URA has been specifically empowered to determine maximum price which may be charged to consumers *in relation to any aspect of a regulated service* in any place (Section 18(1)).

In order for URA to effectively fulfil its functions, Section 13(1) of the URA Act empowers the URA to do all things that are necessary or convenient to be done for or in connection with the performance of its functions. Further, Section 13(2) of the URA Act specifically provides that, without limiting the general powers of the URA as set out under Section 13(1), the URA may:

- (a) require a utility to furnish the URA with information in the possession or control of the utility or any of its related entities relating to a regulated service, amongst others,
- (b) require a utility to confer with the URA as to the manner in which it carries on any specified activity in relation to a regulated service, or
- (c) do anything reasonably incidental to any of its powers.

Pursuant to Section 12(2) of the URA Act, the URA must exercise its functions in a way that considers the interests of, and impact on, consumers and utility businesses as well as Government policy.

4.2 Order not inconsistent with provisions of Port Vila Electricity Contract

Section 3 of the URA Act (as amended) states that "*This Act applies to a regulated service to the extent that is not inconsistent with a provision in any concession agreement under the Electricity Supply Act [CAP 65] existing on or before the commencement of this Act or a provision of any other Act*". For the purposes of this Decision and Order, the relevant concession contract is the Concession Contract for the Generation and Public Supply of Electric Power in Port Vila entered into between the Government and UNELCO dated 15 August 1986, as amended till date (**Port Vila Electricity Contract**).

UNELCO, in its submission, has claimed that "*Matters relating to tariffs are specifically provided for under UNELCO's concession agreements with the Government of Vanuatu. For example, clause 5 of the Specifications Relating to the Concession for the Generation and Public Supply of Electric Power in Port Vila outlines a detailed mechanism for the calculation of tariffs for the supply of electricity.*"

It should be clarified that only certain aspects of the tariffs have been set out in the Port Vila Electricity Contract. To support its claim, UNELCO has given the entire Section 5 of the Specifications³ as an example. It is not clear what portion of Section 5 UNELCO believes the BDI tariff is inconsistent with. Section 5 of the Specifications (as amended) comprises of numerous components, it sets out certain conditions of tariff calculation and obligations on parties. However, this Decision is not inconsistent with any such components, conditions or obligations. Section 4 of the 1998 Amendment⁴ (amending Section 5 of Specifications) is described in the italicised sections below:

Electricity shall be sold to consumers on the basis of a two component rate made up of a fixed fee and a charge proportionate to the quantity of electricity used.

The BDI tariff consists of a fixed monthly fee and a proportionate energy charge.

Depending on the type of agreement signed, the fixed fee is equal to a certain number of units of the base price per kVA contracted for. It covers fixed charges, the hire of the meter and the cost of maintaining the connection.

The fixed fee in the BDI tariff is calculated per kVA, and is calculated to cover the fixed costs of the incremental load.

However, for certain categories of consumers, as described below, the fixed fee is reduced to zero (0).

The BDI tariff is not available to customers who have a zero fixed fee.

As from the 1st August 1998, the prices at which the Concessionnaire is authorised to sell electricity cannot exceed the following base prices for the six (6) supply categories indicated hereinbelow:

A – Low Voltage Agreements – Small Domestic Consumers ...

B – Low Voltage Agreement – Professional Uses (T.U.P.) ...

C – Low Voltage Agreement – Sports fields (T) ...

D – Low Voltage Agreement – Public Lighting ...

E – Low Voltage Agreement – Other Uses (T.U.) ...

F – High Voltage Agreements (M.T.) ...”

The contract restricts the authorized prices UNELCO may charge consumers in these categories from exceeding the levels set out therein. This is not impacted or altered by this Decision. Rather, this Decision authorizes a lower price under specified conditions for customers within the above categories, only a) if customer adds new load, b) has minimum additional subscription of 9.9kVA and c) accepts to be curtailed when requested. The BDI tariff is a special condition for customers in categories of B and F above and not a new category of service and therefore not inconsistent with anything in the concession tariffs. It is priced lower as it is an inferior quality tariff due to limitations.

³ Specifications dated 15 August 1986 relating to the Concession for the Generation and Public Supply of Electric Power in Port Vila entered into between the Government of Vanuatu and UNELCO Vanuatu.

⁴ Addendum dated 1 September 1998 varying the Tariffs of the Contracts for the Generation and Public Supply of Electric Power in Port Vila and in Luganville between the Government of the Republic of Vanuatu, the Honourable Minister of Lands and Natural Resources and Union Electrique du Vanuatu Ltd.

The selling prices of electricity above which are calculated by reference to the price P, shall be rounded off to the nearest 2 decimals for all uses.

Invoices shall be rounded off to the nearest vatu above for all fractions of a vatu equal or greater than 0.5 and to the nearest vatu below for all fractions of a vatu below 0.5.

Invoicing shall be done on a monthly basis.

The same rounding practices and invoicing schedule will be used with the BDI tariff.

Tariffs defined above shall be applied identically to all customers in both the Port Vila and Luganville Concessions.

This clause is no longer relevant as the referred Luganville concession expired on 31st December 2010.

The subsequent portions of the section regarding the charging of VAT, subscribed power and power factor are consistent with this Order.

Further, the program set out in this Decision is not inconsistent with any other tariff related provision in the Port Vila Electricity Contract as the program although not contemplated by the Port Vila Electricity Contract (it could not have been possibly anticipated by the parties in 1986) is neither prohibited by it. The calculation of base price P is not altered in any manner nor does the Decision propose an alternative method of calculating P.

Therefore, the program described in this Order is fully consistent and congruent with the Port Vila Electricity Contract including Section 5 of the Specifications (as amended). It is well within the Commission's power to issue this Order and implement this program, including instructing UNELCO to perform the actions listed in section 7 of this Decision and Order. It should be noted that an order of the Commission is binding on the utility subject only to appellate review.

5. Responses to issues raised during consultation

The consultation process in this case involved a public meeting, follow-up meetings with UNELCO, VCCI, VIPA and the Department of Trade, as well as submissions received from various persons. Written comments were provided by UNELCO in their response to the Preliminary Decision, dated 21st July 2014. This section lays out the Commission's response to the comments received during the consultation process.

5.1 Power of URA to implement program

UNELCO has stated that:

“For the reasons set out below, the Preliminary Decision that purports to implement a Business Development Incentive Tariff (BDI Tariff) is “ultra vires” and beyond the powers of the URA as conferred on it under the Utilities Regulatory Authority Act No. 11 of 2007. ...

Matters relating to tariffs are specifically provided for under UNELCO's concession agreements with the Government of Vanuatu. For example, clause 5 of the Specifications Relating to the Concession for the Generation and Public Supply of Electric Power in Port Vila outlines a detailed mechanism for the calculation of tariffs for the supply of electricity...

Accordingly, the URA is not at liberty to unilaterally implement the BDI Tariff or the ancillary matters set out in the Preliminary Decision.”

URA response

Based on the reasons set out in section 4, the URA Commission states that it is well within URA's power to issue this Order and implement this program and the program is consistent with Port Vila Electricity Contract including Section 5 of the Specifications (as amended).

Under the URA Act, the URA is clearly mandated to fulfil certain functions and exercise certain powers. One of the ways in which the URA conducts its activities and exercises its powers is via the Commission issuing orders. All its orders are independent acts of the Commission pursuant to a majority vote, as provided in the URA Act (Section 11(5)). Another party cannot claim to want to be a signatory to such orders. Therefore UNELCO's contention that this is a unilateral action is without merit. Section 37 of the URA Act requires that prior to exercising any powers contained in Sections 14(1), 17(1) or 18(1), the URA must consult with the utilities potentially affected; these sections pertain to issues of safety standards, reliability standards and setting of maximum price.

To allow due process and to ensure a fair and transparent procedure in the instant case, and to include interests and concerns of potentially affected stakeholders, prior to issuing the Final Order, the URA published a Preliminary Decision on 8th July 2014. URA staff held a meeting on the matter with UNELCO on 13th August 2014 to hear their views and concerns, and subsequently requested supplementary data to confirm the analysis (UNELCO refused to comply with this request, in contravention of Section 13(2)(a) of the URA Act). Commission is satisfied that all parties have been afforded due process and interested parties including UNELCO have received fair hearing in this matter.

Furthermore, this proposal is in the interests of the utility and consumers as it makes more efficient use of existing capacity while also benefiting customers at large. The URA cannot deny consumers the benefits resulting from the BDI tariff because of UNELCO's inaction in this matter to date. UNELCO has provided no sound argument or valid reason why the proposed BDI tariff should not be adopted. Nor has UNELCO shown how it shall harm anyone including its own interest. On the other hand URA staff analysis clearly shows, undisputed by anyone, the benefits to consumers in the short and longer term.

5.2 Impact on existing businesses

During the public meeting the concern was raised that the program would unfairly benefit new entrants in the market over existing businesses as a new entrant would benefit from a reduced electricity bill for their entire connection, while existing customers would be paying the standard tariff. A contrasting view was also raised that the program is equally available to existing customers who can expand benefitting from having already established as well as other incentive schemes such as excise exemptions, acquired land and leases, etc. available to existing businesses. In order to investigate these concerns further, URA staff undertook a survey of existing businesses in conjunction with the Vanuatu Chamber of Commerce and Industry (VCCI), and consulted further with Government, and the Vanuatu Investment Promotion Authority (VIPA). The key findings from this exercise were:

- The results from the survey show that the vast majority of existing business are in favour of the program, and that a discount of at least 20% would encourage their plans for higher electricity subscription. The full results of the survey are presented in Annexe I
- The survey also showed that while not a determining factor, an electricity price discount is likely to be a significant factor in the decision whether to invest in Vanuatu
- The response from VIPA was strongly supportive, as the program reduces a potential barrier to entry. Government feedback (received in writing in August 2014) suggested that the BDI program was appropriately balanced in terms of benefits, and suggested that a survey is a useful exercise.

Based on these findings, the Commission is persuaded that the proposed BDI tariff will have a positive impact on existing businesses and new business investment, and has the general support of the business community, VCCI, VIPA and the Government. Furthermore, the URA feels that the argument that if this proposal does not benefit all customers it should not benefit any customers is specious.

5.3 Level of excess capacity

During the public meeting and at a subsequent follow-up meeting, UNELCO stated that the level of generation capacity is different than that stated in the Preliminary Decision. The figures quoted in this proposal are the latest figures provided by UNELCO, and no further updated information has been provided.

Furthermore, the BDI tariff has been calculated to include the marginal cost of expanding generation capacity for BDI customers. If UNELCO were to cooperate and provide more accurate figures for the cost of existing generation plant and of the cost of new plant, then these figures could be further refined. BDI tariff adopted here is conservatively designed and is reasonable.

6. Commission order

Findings

Based on the staff analysis, public consultation, customer surveys and UNELCO's input, the Commission finds that:

- The proposed BDI tariff is an important step towards providing efficient, reliable, and affordable service to consumers;
- The proposed tariff shall utilize the excess capacity in UNELCO's generating system to attract current and new business customers to increase utilization of the network in Port Vila which will eventually benefit all consumers;
- Offering a BDI tariff is not discriminatory as it is open to all consumers who can meet the eligibility criteria;
- The URA Commission has the power to implement the BDI tariff under its mandate pursuant to the URA Act; and
- The BDI tariff is not inconsistent with the provisions in the Port Vila Electricity Contract of UNELCO and is within the framework of the tariff design in the concession.

The Commission therefore orders that:

1. The Business Development Incentive Tariff program as described in Section 2 is adopted.
2. **Participation in the BDI Tariff Program:**
 - a. Customers wishing to avail of the program may approach UNELCO on and from 1st February 2015 by informing UNELCO with their request for a new connection or increased subscription.
 - b. Any new commercial or high voltage customer or existing commercial or high voltage customer that requests an increase in subscribed power will be notified by UNELCO of the program and the minimum subscription amount.
 - c. If the customer requests to enrol in the program, UNELCO will cross-check against cancelled or reduced subscriptions for the last 12 months.
 - d. Applications will be approved until a total subscribed new load of 3,000kW is reached.
3. **Program limits:**
 - a. UNELCO will inform the URA of total new load subscribed under the BDI tariff on a monthly basis. The limit of the program will be reviewed by the URA and UNELCO on a quarterly basis.
4. The Order shall be submitted for Gazettal. The URA staff shall inform the utility once the Order is gazetted.
5. **Effective Date:** The Order comes into effect on the date of its Gazettal.

7. Notice of Grievance

If UNELCO 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 or fact
- A detailed description of any relevant change in facts or circumstances since the Final Order

A Notice of Grievance can be received until 5th January 2015 and addressed to the Commission.

The Notice may be:

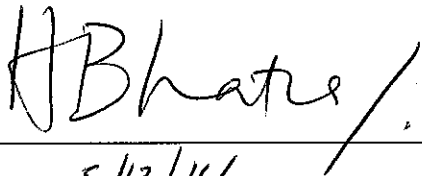
- delivered in person at the
Office of the Utilities Regulatory Authority
VNPF Compound
Corner Pierre Lamy & Andre Ballande Street
Port Vila, Vanuatu
- mailed to
Case U-0013-14
Utilities Regulatory Authority
P.M.B 9093
Port Vila
Vanuatu
- or emailed to
Hasso Bhatia, *PhD*
Chief Executive Officer
Utilities Regulatory Authority
hbhatia@ura.gov.vu

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.

8. Execution Page

CEO and Commissioner

Hasso C. Bhatia, PhD



Date 5/12/14

Chairman

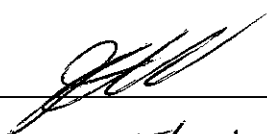
Johnson Naviti Matarulapa Marakipule



Date 5/12/14

Executive Commissioner

John Alilee



Date 5/12/14

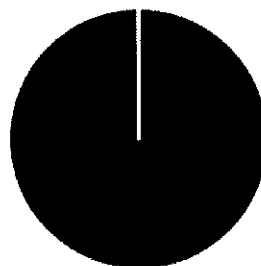
Seal of the Utilities Regulatory Authority

Annexe I. Survey results

This survey was carried out online in conjunction with the VCCI. VCCI members received an email informing them of the survey and requesting their participation on 21st August 2014. 12 responses were received, and are summarised below.

Do you represent an existing or potential business in Vanuatu?	
Yes - existing business	12
Yes - potential investor	0
No	0

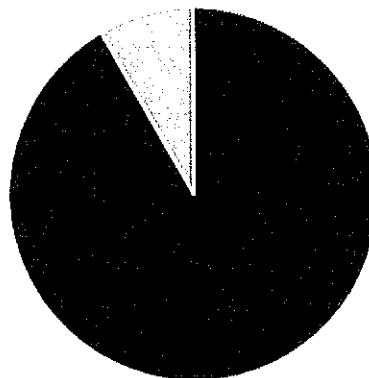
Do you represent an existing or potential business in Vanuatu?



■ Yes - existing business ■ Yes - potential investor ■ No

Are you an existing electricity customer?	
Yes (UNELCO)	11
Yes (VUI)	1

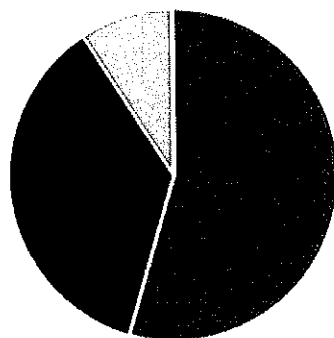
Are you an existing electricity customer?



■ Yes (UNELCO) □ Yes (VUI)

Approximately what % of your annual operating costs are electricity costs?	
0-10%	6
10-20%	4
20-30%	1
30% or more	0

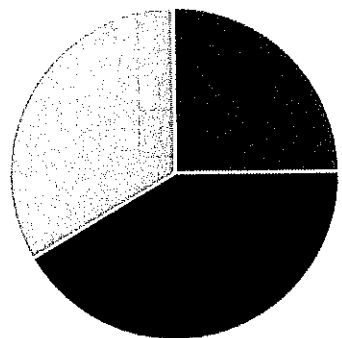
Approximately what % of your annual operating costs are electricity costs?



■ 0-10% ■ 10-20% □ 20-30% ■ 30% or more

Do you currently have plans to invest/expand/diversify your business?	
Yes (this year)	3
Maybe (in next 3 years)	5
Not now	4

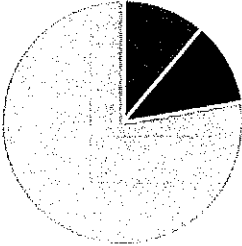
Do you currently have any plans to invest/expand/diversify your business?



■ Yes (this year) ■ Maybe (in next 3 years) □ Not now

Do you have plans to change your electricity subscription or create new electricity connections?	
Increase (this year)	1
Increase or new (3 years)	1
No change planned	7

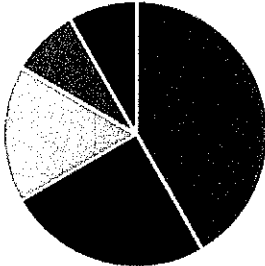
Do you have plans to change your electricity subscription or create new electricity connections?



- Increase (this year)
- Increase or new (3 years)
- No change planned

A discount on additional electricity would change my plans to grow/diversify?	
Strongly Agree	5
Agree	3
Neither agree nor disagree	2
Disagree	1
Strongly disagree	1

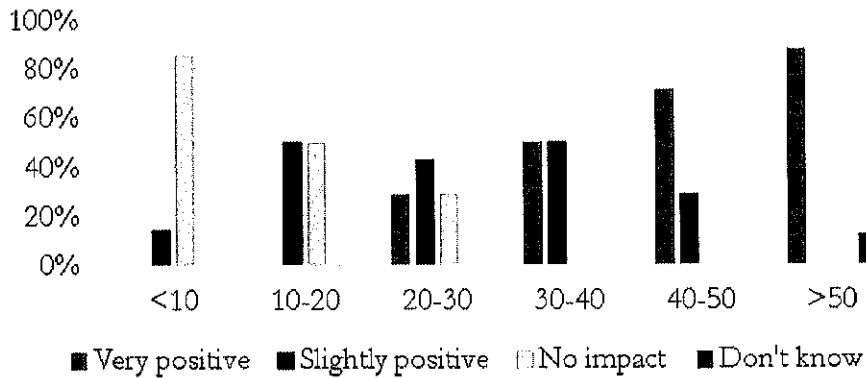
A discount on additional electricity would change my plans to grow/diversify.



- Strongly Agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

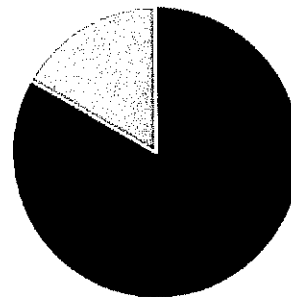
What level of discount on additional electricity would make a difference to your investment/growth plans?						
	<10	10-20	20-30	30-40	40-50	>50
Very positive	0	0	2	4	5	7
Slightly positive	1	5	3	4	2	0
No impact	6	5	2	0	0	0
Don't know	0	0	0	0	0	1

What level of discount on additional electricity would make a difference to your investment/growth plans?



Do you want a discount to be offered on additional/expanded electricity subscription?	
Yes	10
Neutral	2
No	0

Do you want a discount to be offered on additional/expanded electricity subscription?



■ Yes □ Neutral ■ No

Utilities Regulatory Authority

Vanuatu

You can access the U-0013-14 Final Decision, December 2014 on our website www.ura.gov.vu, or by contacting us by telephone (+678) 23335, email: breuben@ura.gov.vu or regular mail at U-0013-14, Utilities Regulatory Authority, PMB 9093, Port Vila, Vanuatu.