Electricity
Prepayment Meter System

Draft Decision

August 2012
How to respond to this paper

All stakeholders including the Government of Vanuatu, UNELCO, existing electricity customers and other members of the public are invited to comment on the Authority’s draft decision set out in this paper, including assumptions, key issues and supporting evidence. Responses and information received will be considered in the formulation of the Authority’s final decision.

The Authority will be seeking responses as part of its public consultations which will include visits to stakeholders and an outreach to communities. In addition to these public consultations, stakeholders can file submissions directly with the Authority.

Submissions can be made until 17 September 2012 and can be made in person at the

Office of the Utilities Regulatory Authority
in the VNPF Building in Port Vila
on the Ground Floor

mailed to

Electricity Prepayment Meter System Draft Decision August 2012
Utilities Regulatory Authority
PMB 9093
Port Vila, Vanuatu

emailed to

Nima Heschmat
Special Adviser
Utilities Regulatory Authority
nheschmat@ura.gov.vu

or called in by telephone to the

Utilities Regulatory Authority at
+678 23335

Submissions will be made available on the Authority’s website in accordance with the Authority’s submission policy. Any material that is confidential should be clearly marked as such.
Preface

The Utilities Regulatory Authority (the Authority) is Vanuatu’s economic regulator of electricity and water services throughout Vanuatu. The Government of Vanuatu established the Authority on 11 February 2008 under the Utilities Regulatory Authority Act No. 11 of 2007 (the Act).

The Authority is responsible for the regulation of certain services in the electricity and water sectors. Our role differs in each regulated industry but generally involves regulating prices, service standards, and market conduct and consumer protection. We also investigate and advise the government on regulatory matters that affect Vanuatu’s regulated utilities.

The Act states that our primary objective is to regulate these utilities to ensure the provision of safe, reliable and affordable regulated services, to maximise access to regulated services throughout Vanuatu and to protect the long term interests of consumer.

Further, the Authority is responsible for approving metering apparatus for measuring and controlling energy as well as changes to customer agreements for electricity services supplied by UNELCO.

UNELCO has requested that the Authority consider and approve the implementation of a prepayment meter system within its concession areas.

This paper sets out the Authority’s draft decision on the proposed prepayment meter system, based on issues it has identified during its review. The Authority considers the issues to be significant and is of the view that they must be addressed in order to enable it to reach its final decision.

This draft decision also takes into account stakeholder submissions received in response to the Authority’s March 2012 Position Paper.

Going forward and following stakeholder consultations on this draft decision, the Authority will publish its final decision, taking into account all stakeholder comments and submissions in a transparent manner.

Affordability, reliability, safety and improved access to electricity services are of paramount importance to the Authority’s decision making process. It must take into account these objectives when making its decision, ensuring that such decisions are in the long term interest of Vanuatu’s electricity customers.

Johnson Naviti
Chairperson
Executive summary

The Utilities Regulatory Authority is conducting a review on the approval of a prepayment meter system proposed by UNELCO for its Port Vila concession area. This paper sets out the Utilities Regulatory Authority’s Draft Decision on implementing a prepayment meter system in Port Vila.

In April 2009, UNELCO requested that the Authority consider and approve the implementation of a prepayment meter trial within the Port Vila concession area. The Authority published its Prepayment Meter Technology Trial Review Issues Paper in June 2009 and set out specific issues and requirements for a prepayment meter technology trial on which stakeholders were invited to comment. UNELCO commenced implementation of a trial project at Mele Maat by January 2010. In September 2010 UNELCO provided the Authority a report on the prepayment meter technology trial setting out its assessment and findings. Following a series of consultations and stakeholder submissions, the Authority outlined its findings including significant issues to be addressed by the utility in its March 2012 Position Paper. Submissions to the Position Paper have been taken into account in this paper, the Authority’s Draft Decision.

The proposed prepayment meter system is based on a prepayment meter that can be recharged by refilling a chip card at a resale point. Customers play a significant role in the correct functioning of the proposed system as they are responsible for managing the meter, their consumption and available credit on an ongoing basis, and interact with resale point agents during recharges. Breakdowns along this process cycle on the customer’s side can lead to immediate disruption of electricity supply to their households. Given that the customers’ involvement is significant, the risk for such disruptions, unlike on conventional postpayment metering systems, is just as significant.

Each aspect of this proposed system, including technical components, customer interactions as well as support structures required to operate the system as a whole, have been reviewed by the Authority, leading to a series of issues that have not been sufficiently addressed by UNELCO.

UNELCO has claimed the success of an older prepayment meter system in Malekula and Tanna as an argument for moving ahead with a new prepayment meter system in Port Vila. The Authority has conducted an evaluation of the Malekula and Tanna system, which differs from the proposed system in technical terms, and has found that customers in Malekula and Tanna are being disadvantaged compared to postpayment customers elsewhere.

The Authority finds that the introduction of a new billing method, such as prepayment, can only be reviewed in the context of a functioning tariff regime. However, the Authority has identified other tariff related issues in regards to how customers are subscribed under tariff categories by UNELCO.

Questions around system costs and benefits can have significant implications on the future tariff for all electricity customers in Vanuatu. UNELCO has claimed that the introduction of prepayment meters will lead to cost savings for customers. However, UNELCO has not provided the Authority with a reasonable cost-benefit-analysis that would support its claim and provide justification that an optimal system has been chosen to the benefit of its customers.

The Authority has analyzed the system in regards to access to uninterrupted electricity supply, for example the requirements of a prepayment resale point network. UNELCO has agreed, following the Authority’s consultation process, to expand plans to implement such a network. However, lacking a cost-benefit-analysis and demand forecasts for uptake of the system, the costs of such an
expansion and the roll out of the system more generally cannot be determined. The target group for prepayment meters has been defined to include all Small Domestic Customer tariff subscribers, with no evidence to support that all customers demand such technology. Neither adoption rate forecasts, nor demand based analysis for the system have been conducted by UNELCO.

Minimum recharge amounts and meter safeguards against sudden interruptions and a solution to address tariff fluctuation risks have been proposed by UNELCO in their latest submissions. However, they are yet to be finalized in customer agreement drafts, which have not been provided to the Authority, and put in context with customer demands.

UNELCO had initially proposed to apply a tranche tariff that relies on regular billing cycles to the prepayment meter system, which by its very nature is defined by irregular billing cycles. This results in an impossible situation for customers’ budgeting requirements. In its latest submissions it had deviated from its initial proposal, without however providing any details on how this issue could be addressed otherwise.

UNELCO’s previous claim that a rollout of the proposed prepayment meter system would lead to energy conservation effects and thus lower average costs for customers remains unsupported. The Authority and UNELCO have agreed that the evidence collected during the trial period is statistically inconclusive.

The claimed technological benefits of the meter, namely additional information displayed to the customer have not been verified and surveys conducted by UNELCO during the pilot trial are found to be limited and arithmetically flawed.

Only anecdotal evidence of claimed safety benefits have been provided to the Authority and the issue of safety has not been addressed comprehensively according to UNELCO’s own submissions.

Overall, UNELCO has thus far not substantiated its claim that the rollout of prepayment meters is to the overall benefit of its electricity customers. The Authority has identified the lack of supporting evidence and the quality of submissions received from UNELCO as a major issue during this review. Further, UNELCO has breached the conditions of the concession agreement with the Government of Vanuatu on at least one occasion by installing a prepayment meter in the Pango area without the Authority’s prior approval.

The Authority’s draft decision finds that the proposed prepayment meter system is not in the long term interest of UNELCO’s Port Vila customers, based on following major issues that have not been addressed by the utility thus far:

- Complexity of applying a postpayment tariff to a prepayment system;
- Lack of a cost-benefit-analysis that takes all feasible options into account;
- Lack of a customer agreement draft made available to the Authority to review;
- Lack of demand analysis and potential customer uptake over specified time periods;
- Lack of a comprehensive analysis of safety issues and remedies thereof;
- Disregard of Vanuatu’s experience with current prepayment meters in Malekula and Tanna.

The Authority has outlined its draft decision in this paper and is inviting stakeholders to comment on the various issues that have been identified during the review. Following stakeholder consultation the Authority will publish its final decision, taking into account all stakeholder comments and submissions in a transparent manner.
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   Response UNELCO au
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   Kerry Martin, White Sands Engineering (17 April 2012)
   Hannington Alatoa (April 30, 2012)
   Tevi Obed (April 10, 2012)
   B. J. Skane (April 30, 2012)
1. Introduction

1.1. Background

The Utilities Regulatory Authority Act No. 11 of 2007 (the Act) establishes the Utilities Regulatory Authority (the Authority) of Vanuatu. The Authority is a body corporate with perpetual succession, acting independently from the government. The Authority’s Commission consists of three Commissioners: a Chairperson and two part-time Commissioners of which one is the Chief Executive Officer of the Authority.

The Act empowers the Authority to regulate certain utilities, in particular, the provision of electricity and water services throughout Vanuatu.

The Authority’s core functions with respect to existing water and electricity utilities include:

- Monitoring and enforcing existing concession contracts which include checking monthly price adjustments made by the utility, monitoring service standards and technical performance, reviewing yearly financial reports and auditing operating report processes;
- Renegotiating tariffs with the utility in accordance with the relevant concession contracts;
- Managing consumer complaints by assisting consumers resolve grievances and/or complaints with the utilities;
- Advising the Vanuatu Government on utility-related matters as requested; and
- Communicating with the government, utilities, customers and the general public in order to provide information about matters or updates relating to utilities.

The Government of Vanuatu has awarded concession contracts for the provision of water and electricity services to private operators. These contracts delegate the exclusive responsibility for the provision of water and electricity services in Port Vila, and electricity services on Malekula and Tanna Islands to UNELCO (a subsidiary of the GDF SUEZ Group). The contracts specify rules regarding service coverage, the quality of service to be provided, and the maximum tariffs that may be charged for these services. As the counterparty to each of these contracts, the government has been responsible for monitoring the utility company’s compliance with the contractual provisions.

The Act empowers the Authority to exercise the functions and powers of the government relating to the existing contracts for electricity and water supply services.

Under those functions, the Authority is responsible for approving metering apparatus for measuring and controlling energy and power to consumers, which is supplied by UNELCO.

In May 2009, UNELCO requested that the Authority consider and approve the implementation of a prepayment meter trial within the Port Vila concession area.

The Authority published its Prepayment Meter Technology Trial Review Issues Paper in June 2009. The Authority set out specific issues on which stakeholders were invited to comment; and certain information requirements for the prepayment technology trial assessment.

UNELCO commenced implementation of the trial project in late 2009 to assess and promote the use of an electricity prepayment meter system for its customers at Mele Maat within the Port Vila concession. By January 2010, UNELCO had installed 105 prepayment meters in the Mele Maat area.
In September 2010 UNELCO provided the Authority a report on the prepayment meter technology trial setting out its assessment and findings.

The Authority’s independent review of the report identified a number of issues that UNELCO had not adequately address. These included, among other things, prepayment meter resale points for customers.

In October 2011, UNELCO installed its first prepayment meter sale point within the Mele Maat area as part of the ongoing trial it had commenced in January 2010.

The Authority continued its independent review of the prepayment meter system following the installation of the sale point in Mele Maat and presented its assessment and findings in its March 2012 Position Paper.

The Authority conducted stakeholder consultations and received numerous submissions related to this topic, including from UNELCO.

It is now presenting the outcome of this process as part of this paper, the Authority's Draft Decision.

1.2. Prepayment meter review regulatory framework

Section 20 of the Utilities Regulatory Authority Act No 11 of 2007 sets out that the rights exercisable by the government in the contracts described in Part A of Schedule 1 are assigned to the Authority.

In accordance with section 11, clause 57 of the specification relating to the concession for the generation and supply of electric power in Port Vila, the Authority will undertake a review of the prepayment meter system trial.

In accordance with section 13, clause 65 of the specification relating to the concession for the generation and supply of electric power in Port Vila the Authority will review any required customer agreements in the context of the introduction of prepayment meter systems.

In its submissions UNELCO has asserted that the Authority’s powers are limited to reviewing the technical accuracy of the meter. Further it has agreed on the fact that approval for changes to customer agreements and possibly amendments to the concession contract may be required.

The Authority maintains that the review is legitimately being conducted on the proposed prepayment meter system as a whole under the regulatory framework outlined in this section.

To assist the Authority in evaluating and assessing the implementation and suitability of a prepayment meter system, the Authority continues to seek UNELCO’s cooperation in providing the Authority with all relevant information, specifications and reports.

1.3. Purpose of this paper

The purpose of this paper is to present the Authority's draft decision on the proposed rollout of a prepayment meter system by UNELCO in its Port Vila concession area and to seek stakeholder comments on this draft decision.
Stakeholders are directed to the Authority’s Prepayment Meter Technology Trial Review Issues Paper June 2009 for a detailed explanation of the review methodology, and a description of the issues and assumptions used by the Authority in assessing the prepayment meter system. Stakeholders are also directed to the Authority's Prepayment Meter System Position Paper March 2012 for a detailed outline of its review of the prepayment meter trial in Mele Maat and issues it had identified to be addressed by UNELCO.

The Authority has set out its draft decision and the specific issues leading up to it, on which stakeholders are invited to comment. However, stakeholders are invited to make any other comment that they wish to raise that may not be covered by the issues raised in this paper.

1.4. Structure of this paper

- Chapter 2 outlines the Authority’s draft decision and provides an analysis and discussion of relevant aspects of the proposed prepayment meter system. The discussion takes into account stakeholder submissions and analysis setting out the issues identified by the Authority that must be addressed by the utility. Specifically this chapter is structured as follows:
  - Section 2.1. outlines the Authority’s Draft Decision
  - Section 2.2. provides a short description of the proposed prepayment meter system.
  - Sections 2.3. and its subsections address issues around the tariff, application thereof as part of the proposed prepayment system and potential future impacts on the tariff going forward.
  - Section 2.4. discusses the determination of the proposed system’s costs and benefits.
  - Section 2.5. and its subsections discuss customer implications in regards to access to electricity including issues around affordability, uninterrupted supply and prepayment resale points.
  - Sections 2.6. and its subsections the determination of the target group for the proposed prepayment meter system and customers’ response to a pilot trial being conducted by UNELCO.
  - Section 2.7. discusses requirements for specific customer agreements conditions.
  - Section 2.8 discusses issues around safety and reliability.
  - Section 2.9. discusses the proposed prepayment meter system’s features in terms of usability and how data collection is handled.
  - Section 2.10. discusses the proposed system’s impact on customers’ electricity consumption.
- Chapter 3 provides a chronological overview of submissions, events, communications and actions taken by stakeholders involved.
- Chapter 4 outlines the Authority’s next steps in the electricity prepayment meter system evaluation process.
- The appendices provides stakeholder submissions to and communications with the Authority relating to the proposed prepayment meter system that were submitted during the formal consultation period following the publication of the Authority’s March 2012 Position Paper.
2. Discussion of the Authority’s Draft Decision

2.1. The Authority’s Draft Decision

The Authority’s draft decision finds that the proposed prepayment meter system is not in the long term interest of UNELCO’s Port Vila customers. Reasons thereof are outlined in detail in subsequent sections and include following major issues the Authority has identified and which have not been addressed by the utility thus far:

- Complexity of applying a postpayment tariff to a prepayment system;
- Lack of a cost-benefit-analysis that takes all feasible options into account;
- Lack of a customer agreement draft made available to the Authority to review;
- Lack of demand analysis and potential customer uptake over specified time periods;
- Lack of a comprehensive analysis of safety issues and remedies thereof;
- Disregard of Vanuatu’s experience with current prepayment meters in Malekula and Tanna.
2.2. Proposed prepayment meter system

UNELCO’s proposed prepayment meter system is based on the following components:

- prepayment customers
- prepayment meters
- prepayment meter chip cards, and
- prepayment resale points.

This does not include aspects of the usual generation, supply and distribution of electricity as they are not unique components of the prepayment meter system. The prepayment meter provides for metering as well as electricity flow dependent on a customer’s positive credit level. The prepayment meter also provides various options for the customer to monitor usage as well as credit balance levels.

The prepayment chip card is uniquely linked to the customer’s prepayment meter and used to recharge the meter when needed. The chip card must be inserted into and extracted from the meter by the customer, then carried to a resale point where credits are applied to the chip card upon payment, to be then inserted and extracted again to transfer the credit to the meter. The chip card also serves as a vehicle to communicate consumption records collected by the meter back to UNELCO. As the price of electricity changes over time, the chip card also stores the current price and saves it back to the meter at each recharge.

The prepayment resale points are locations accessible to prepayment customers at which UNELCO provides specialized resources that are required for the recharge process and skilled staff that can execute recharge transactions. The resale points are equipped with customized hardware, such as chip card readers, and software, which is linked electronically to UNELCO’s information and billing systems.

Most importantly, customers themselves play a significant role in the correct functioning of the proposed prepayment technology system. The customer is responsible for:

- Monitoring the meter’s prompts;
- Managing consumption and available credit on an ongoing basis;
- Ensuring that the chip card is securely kept;
- Operating the same chip card; and
- Interacting with resale point agents during each recharge cycle.

Breakdowns along this process cycle on the customer’s side can lead to immediate disruption of electricity supply to their households. Given that the customers’ involvement is significant, the risk for such disruptions, unlike that experienced by customers using postpayment metering systems, is just as significant.

Each aspect of the proposed system, including technical components, customer interaction as well as support structures required to operate the system as a whole, have been reviewed by the Authority. This paper outlines the Authority’s draft decision in regards to the proposed prepayment meter system and outlines issues the Authority has identified in the subsequent sections.
2.3. Tariff and tariff structure

The electricity tariffs in Malekula, Port Vila, Tanna, and previously Luganville have been agreed upon between the government and UNELCO through contracts and various amendments. The tariff is composed of a fixed base tariff price \( P_0 \) during periodic review. This base price is then adjusted on a monthly basis according to an adjustment formula in order to take into account fluctuations that affect the generation costs of electricity. This includes for example increases or decreases in the cost of fuels required for electricity generation. Finally, the customer is provided various tariff options that are classified under a tariff structure depending on customer demand levels.

A revision of the base tariff occurred most recently in April 2011 through an arbitration award based on the Authority’s May 2010 Tariff Review Final Decision. As a result of this and for the first time since operation of the electricity network in Vanuatu in 70 years, the electricity base tariff decreased by approximately 4.7%.

On the basis of this tariff and tariff structure, UNELCO is seeking to expand a prepayment meter system to service customers across all three concessions. The prepayment meter system would thus provide an additional prepayment billing arrangement, but would maintain the existing tariffs that are in place and have been available to customers on a postpayment basis thus far. Therefore the cost of electricity should neither increase nor decrease for the end customer as a result of the introduction of the proposed prepayment meter system.

The outlined table provides an overview of the existing tariff regime and the different tariff category options that are currently available to customers. Each category has a set of multipliers that are applied each month to the consumption that is measured on a customer’s meter. Some categories also have monthly fixed fees that depend on the customer’s subscribed demand rate in kVA or Amps.

<table>
<thead>
<tr>
<th>Tariff Category</th>
<th>P (Vatu) per kWh</th>
<th>UNELCO 61.89/month x P</th>
<th>Tanna, Malekula 10 Amps x P</th>
<th>Small Domestic 180-up x P</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-60</td>
<td>0.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61-120</td>
<td>1.21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>121-180</td>
<td>3.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepayment</td>
<td>0.62</td>
<td></td>
<td>Tanna, Malekula 5 Amps</td>
<td></td>
</tr>
<tr>
<td>180-up</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Voltage</td>
<td>1.21</td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Business</td>
<td>0.87</td>
<td></td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>Sports Field</td>
<td>0.54</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Lighting</td>
<td>1.00</td>
<td></td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>High Voltage</td>
<td>0.70</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Under these categories, UNELCO has expressed a preference to focus on subscribers in the Small Domestic Customer (SDC) tariff as a suitable target group for the prepayment meter system. The tariff outlined in the table would remain the same, however the billing method would be modified.

2.3.1. Tranche tariff under a prepayment scheme

UNELCO has expressed its intention to target Small Domestic Customers as part of a wider prepayment technology rollout. Given this, the Authority is placing special attention to issues that may arise in applying the Small Domestic Customer tariff category to a prepayment meter system.

Under the current tariff category scheme, which provides different tariffs for different customer categories, Small Domestic Customers consume electricity on a tranche based tariff. Under a tranche based tariff, customers’ monthly consumption is charged at different prices depending on how much electricity is consumed. The first 60 kWh each month are billed at rate T1, the next 60 kWh are billed at T2, which is higher than T1 and after that at T3, which is again higher than T2. Thus, the cost of electricity per unit of energy (in kWh) increases as consumption increases.
More details on the tranche tariff and issues arising from the application thereof are discussed in detail in the Authority’s March 2012 Position Paper, in which the Authority outlines how the application of the tranche tariff would not be favorable to customers.

The issue has further been pointed out to UNELCO by the Authority during its consultations. UNELCO has maintained that it does not believe this to be a substantial issue and proposed improved customer communications (precise nature of which was not shared with the Authority) to resolve complications arising from tranche variations and asynchronous recharge cycles.

In its latest submissions it has also proposed a varied tariff category based on average customer consumption, however has not provided any details for such a tariff category thus far. UNELCO has also expressed that it had constrained the design of the proposed prepayment system based on the terms of the current concession agreement, not taking into account that variations to concession agreement may be required in order to ensure that a prepayment system may be implemented in the best interest of its customers.

The Authority finds that the issue around application of a postpayment tariff category to a prepayment billing method poses a significant burden on the average customer and that the proposed process is difficult to understand, calculate and managed by customers. Stakeholder submissions in response to the Authority’s May 2010 have expressed similar concerns. The Authority is not satisfied with UNELCO’s response and finds that UNELCO has not adequately addressed this issue.

2.3.2. Evaluation of existing prepayment tariff in Malekula and Tanna

Vanuatu already has experience with a prepayment meter system in Malekula and Tanna. The Authority is outlining its findings in regards to this existing system in this section.

UNELCO has claimed that the successful operation of its prepayment meter system in Malekula and Tanna supports UNELCO’s plans for expanding such services to Port Vila. The Authority has reviewed the prepayment meter system in Malekula and Tanna in order to determine the validity of this claim.

Details of this review are outlined in the Authority’s March 2012 Position Paper. In summary, in 2001 UNELCO sought approval for a different type of prepayment meter system ensuring the Government of Vanuatu that customers would not be disadvantaged by the introduction thereof. As part of their 2001 communications with the Government of Vanuatu, UNELCO proposed to introduce a prepayment tariff that according UNELCO’s exchanges with the government would not disadvantage customers.

Upon review of the actual implementation of the scheme, the Authority has found that since 2001 a significant number of customers have been paying more for their electricity consumption under the implemented prepayment category compared to postpayment options that should also have been offered by UNELCO. At times affected customers were billed at up to three times as much compared to postpayment options.

In its submissions UNELCO has asserted that these facts have no relation to the approval of the future prepayment system, which differs in technology and charges customers equally compared to existing postpayment tariffs. It has also asserted that a roll out of the new prepayment meter system is already close to being completed in Malekula and ongoing in Tanna. The Authority has issued no approval for such a roll out. A complete roll out is also not evident from data provided by UNELCO in its 2011 Technical Report. UNELCO has claimed during consultations that the figures cited in its report were erroneous, but has thus far not provided corrected figures to support its claims.
The Authority maintains that specific experience with prepayment schemes, in particular if they have occurred within the country, are relevant factors to be taken into account for the purposes of its review. In particular the fact that the prepayment billing method has resulted in customers not being able to conduct appropriate cost comparisons to lower cost options is an important factor to consider.

The Authority disagrees with UNELCO’s claims that the rollout and experience with prepayment meters in Malekula and Tanna have been successful, in particular when customer’s additional costs are considered. The Authority will further investigate this issue as part of its evaluation of UNELCO’s existing tariff categories and the application of their respective rules as discussed in the next section.

2.3.3. Ongoing evaluation of existing tariff structure

The Authority is currently in the process of conducting an evaluation of UNELCO’s existing tariff categories and the application of their respective rules.

Following stakeholder complaints, the Authority has found historic irregularities related to the categorization of customers applied by UNELCO. This prompted the Authority to initiate an evaluation of UNELCO’s practices in applying the tariff, the tariff categories and the relevant contractual clauses around them.

The ongoing evaluation and report, which will be published by the Authority, will identify issues concerning how UNELCO establishes customer agreements and applies its tariff categories.

During stakeholder consultations UNELCO has asserted that such issues are unrelated to the approval of the prepayment meter.

The Authority maintains that these issues, to be discussed in a separate paper, should first and foremost be resolved, before the Authority takes into consideration any changes of billing methods. Once the Authority has progressed its evaluation of UNELCO’s application of the existing tariff categories and billing methods, the Authority can further consider the introduction of additional billing methods, such as the one proposed for a prepayment meter system.

2.3.4. Tariff fluctuation risks

UNELCO has proposed to operate the prepayment meter system on the basis of existing tariffs and tariff categories, currently available to postpayment customers. The current tariff is recalculated on a monthly basis depending on variations of electricity generation costs, including among other things fluctuations in the price of diesel, inflation and staff costs.

Under its initial proposal UNELCO had proposed to pass on tariff fluctuations retroactively which could have potentially led to customers owing additional charges as outlined in the Authority’s Position Paper.

In submissions UNELCO claimed that charges that may be due retroactively are small and thus negligible. It calculated that an average due may be 80 Vatu.

The Authority finds the issue of invoicing customers additional charges for energy that has been prepaid unacceptable and in direct contradiction to UNELCO’s claim that the prepayment meter system enables customers to better manage budgets.
The Authority disagrees with UNELCO’s claim that the charges are negligible considering that the 80 Vatu cited is proportional to close to 4 kWh consumption for an average targeted customer.

UNELCO however also proposed the possibility to remove the retroactive nature of the recalculation and bill customers for the price of electricity that is currently in effect at the time of purchase.

If this option was to be further formalized and committed to for the implementation of the proposed prepayment scheme, it would be acceptable to the Authority to consider this issue as addressed.
2.4. Costs versus benefits and impact on future tariffs

The electricity base tariff, as determined by the Authority in its Tariff Review Final Decision in May 2010, considers various costs that the utility may pass on to customers through the electricity tariff.

If the introduction of a prepayment meter system across Port Vila would lead to cost savings for UNELCO, the Authority would take this into consideration during its next tariff review and pass on those savings to the benefit of all customers. Vice-versa, if costs encountered by UNELCO due to the introduction of a prepayment meter system were to increase, UNELCO could request to pass on those additional costs to customers, which would lead to an increase in tariffs. It is therefore essential to understand the costs and benefits of a wider rollout as currently proposed by UNELCO.

In this regard, the Authority inquired with UNELCO about such costs and benefits and whether a cost-benefit-analysis had been conducted. Such an analysis would provide a basis of whether investments in a particular prepayment meter system are financially justified, and whether, in comparison to the existing tariff and other potential prepayment system options, a decision to allow the proposed prepayment meter system would benefit customers or not.

In response to the Authority’s questions, UNELCO provided the Authority with the following outline of savings.

For an estimate of 5 000 customers equipped with prepayment the following savings can be expected:

- Back office (meter reading): 2 500 000 VUV/y
- Furniture and mail services: 2 500 000 VUV/y
- Disconnection / reconnection: 4 000 000 VUV/y (Customers cost benefit)

Cost of resale points and increase of Office crowd has also to be taken into account. These savings in terms of operation cost and staff cost have been included in the global savings 2010 – 2014 proposed by UNELCO during the tariff review.

Supplemental supporting evidence requested by the Authority was provided by UNELCO with the following:

<table>
<thead>
<tr>
<th>[Prepayment] Customers</th>
<th>1000</th>
<th>2000</th>
<th>3000</th>
<th>4000</th>
<th>5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>benefits (incl customers) [in Vatu]</td>
<td>800,000</td>
<td>2,850,000</td>
<td>4,900,000</td>
<td>6,950,000</td>
<td>9,000,000</td>
</tr>
</tbody>
</table>

Should the implementation of the prepayment meters have a negative impact on the operation cost of UNELCO during the first years, it will definitely not have an impact in the customer since the tariffs [sic] review as [sic] already set the operating costs of UNELCO over the next 5 years.

UNELCO referencing a “negative impact” implies that costs would not impact the tariff under the current tariff period, but may do so in the future, with a potential of driving up tariffs.
UNELCO’s submissions provided the following cost savings in relation to customer deployment rates:

<table>
<thead>
<tr>
<th></th>
<th>1000</th>
<th>2000</th>
<th>3000</th>
<th>4000</th>
<th>5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepayment Customers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Back office (meter reading)</td>
<td>222,000</td>
<td>791,500</td>
<td>1,361,000</td>
<td>1,930,500</td>
<td>2,500,000</td>
</tr>
<tr>
<td>Furniture and mail services</td>
<td>222,000</td>
<td>791,500</td>
<td>1,361,000</td>
<td>1,930,500</td>
<td>2,500,000</td>
</tr>
<tr>
<td><strong>Total (excl customer benefits)</strong></td>
<td><strong>444,000</strong></td>
<td><strong>1,583,000</strong></td>
<td><strong>2,722,000</strong></td>
<td><strong>3,861,000</strong></td>
<td><strong>5,000,000</strong></td>
</tr>
<tr>
<td>Disconnection / reconnection</td>
<td>356,000</td>
<td>1,267,000</td>
<td>2,178,000</td>
<td>3,089,000</td>
<td>4,000,000</td>
</tr>
<tr>
<td><strong>Total (incl customer benefits)</strong></td>
<td><strong>800,000</strong></td>
<td><strong>2,850,000</strong></td>
<td><strong>4,900,000</strong></td>
<td><strong>6,950,000</strong></td>
<td><strong>9,000,000</strong></td>
</tr>
</tbody>
</table>

In response to the Authority’s March 2012 Position Paper, UNELCO provided the following additional figures for the Authority to consider:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Resale point investment costs per unit</td>
<td>194,500 Vatu</td>
</tr>
<tr>
<td>Resale point operational costs per unit per month</td>
<td>20,000 Vatu</td>
</tr>
<tr>
<td>Disconnection costs per 18,000 customers in 2011</td>
<td>12,870,912 Vatu</td>
</tr>
<tr>
<td>Six meter readers per 10,000 customers over 10 days</td>
<td>500 man months</td>
</tr>
<tr>
<td>Postage fees in total per month</td>
<td>400,000 Vatu</td>
</tr>
</tbody>
</table>

The Authority dismisses UNELCO’s claim that the issue of cost savings due to the introduction of a prepayment meter system was subject to any decision of the Authority or the arbitration award.

The Authority finds that the data UNELCO has provided is not substantiated, does not provide supporting evidence for its claims and is at a level that cannot be considered as a building block of a reasonable cost-benefit-analysis. The Authority finds that UNELCO has not provided supporting materials to adequately determine whether the introduction of a prepayment meter system is justified and what its impact on a future tariff may be.

Further, the Authority has not been provided any analysis on whether the proposed system would provide best value for money for UNELCO’s customers. During consultations UNELCO has acknowledged that it had constrained itself during the design of the system by current concession agreements between UNELCO and the Government of Vanuatu and the tariff categories that are defined therein. However, the Authority notes that such a constraint is not required, in particular if it hinders the utility from introducing more innovative solutions that would benefit its customers. A amendment of the concession agreement could be considered as part of the design and implementation of a prepayment meter scheme, if required.
2.5. Access to electricity services

2.5.1. Access to affordable connections

UNELCO has maintained that the proposed prepayment system provides customers substantial benefits. One such benefit cited is customer savings on upfront new connection costs.

UNELCO has stated in its latest submission the current connection costs as outlined in the table below including the difference of a security deposit required for postpayment customers versus upfront payment for one month of consumption for prepayment customers.

UNELCO claims that the potentially lower cost of the meter itself and the lack of a security deposit requirement leads to lower upfront costs for new connections. The Authority considers this argument as flawed, as UNELCO has also claimed and reconfirmed during consultations that prepayment meter boxes can be used for both, post- and prepayment billing. Thus, even if UNELCO would procure prepayment meters at a lower price than existing postpayment meters as quoted in their submissions, such savings could equally apply to postpayment customers and are thus not a direct benefit of putting a prepayment system in place. Cost savings due to the lower cost of prepayment meters can be disregarded as part of cost-benefit considerations.

Further, on the issue of security deposits, the Authority has taken into account in its analysis that the new connection upfront cost under a prepayment meter system, in comparison to a postpayment system, must include the first recharge that allows electricity consumption for a reasonable period of time. Postpayment systems in comparison do not require an advance payment, other than the security deposit, and provide immediate access to electricity until the next customer bill is due, typically weeks after the connection is established. The table below summarizes more appropriately the comparison of upfront new connection costs of the proposed prepayment and existing postpayment meter systems. It is taking into account revised figures that UNELCO has provided in response to the Authority’s March 2012 Position Paper.

<table>
<thead>
<tr>
<th></th>
<th>Postpayment</th>
<th>Prepayment</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical connection cost</td>
<td>30,944</td>
<td>30,944</td>
<td></td>
</tr>
<tr>
<td>Meter Box (assuming prepayment can be used on a postpayment basis)</td>
<td>7,255</td>
<td>7,255</td>
<td></td>
</tr>
<tr>
<td>Deposit versus one month of upfront consumption</td>
<td>3,851</td>
<td>2,236</td>
<td>1,615</td>
</tr>
<tr>
<td><strong>New connection total</strong></td>
<td>42,050</td>
<td>40,435</td>
<td><strong>-3.84%</strong></td>
</tr>
</tbody>
</table>

The benefits for the main target group of Small Domestic Customers is negligible and comes at a price, namely not having the flexibility of settling bills in fixed monthly intervals. For categories with higher security deposit requirements, such as *Other Use Low Voltage* customers with high subscribed demand rates, the impact of security deposit savings would be higher. However, such categories are not claimed as main target groups by UNELCO for the proposed scheme.

2.5.2. Access to uninterrupted supply

Interruptions to energy supply have far reaching effects for electricity customers and must be managed accordingly.

Under a postpayment billing system, as is currently available to all customers within UNELCO’s concession area, an upfront security deposit secures the supply of electricity until the next billing cycle. A typical billing process allows for several weeks to settle bills, before supply is interrupted.
Under a prepayment meter system, customers can recharge their electricity account in smaller increments and according to their own budgeting schedule as opposed to a postpayment monthly cycle. Interruption to supply will occur almost immediately after customers have depleted their credit, with a series of safeguards in place to delay interruption for a short period of time.

To safeguard against sudden interruptions, UNELCO has agreed, in consultation with the Authority, to provide an overdraft buffer of 300 Vatu, which would provide the customer with additional time to arrange for a recharge. Further, UNELCO has ensured that the meter does not cut electricity between Friday to Monday or on holidays, during which resale points may not be reachable.

Once the overdraft buffer is consumed or the holiday or weekend has elapsed, the meter will automatically cut the connection. In order to reactivate access to electricity, the customer has to settle the overdraft balance and purchase a minimum amount of credit for a recharge at a resale point. In contrast to a postpayment system customers are not charged any dis-/reconnection fees.

The appropriateness of the exact overdraft buffer allowance is yet to be formalized by UNELCO and the buffer does not protect the customer from interruptions while away from their household.

The Authority has not received a draft customer agreement that specifies the rules concerning supply interruptions, as discussed further in section 2.7.

Further, as outlined in detail in its March 2012 Position Paper, The Authority has raised concerns about claiming the lack of reconnection fees as customer benefits, in particular if they are to be included in the systems cost-benefit-analysis.

In its most recent submissions UNELCO has raised the issue that postpayment customers are at high risk for continued interruptions of supply as, once disconnected, lower income households faced with additional fees and a cumulative outstanding balance, cannot afford to settle their bills for an extended period of time.

The Authority finds this claim as reasonably valid. However lacking concrete data to compare interruption periods to prepayment customers, a proper comparison is not achievable. UNELCO has noted that it has not collected any data on the interruption periods of prepayment customers during the Mele Maat trial and that requests to the manufacturer of the meter would be required to ascertain whether such data could be tracked at all.

2.5.3. Access to prepayment resale points

In a survey conducted by UNELCO during the pilot trial, customers from Mele Maat voiced concerns over having to recharge at UNELCO’s head office in Port Vila due to the costs and time associated with traveling to town. This circumstance is aggravated by the fact that under the prepayment meter system, according to UNELCO, customers recharge their accounts multiple times a month, whereas under a postpayment system, travel to UNELCO’s office is required once a month at most.

In response to consultations conducted by the Authority, UNELCO proposed that additional resale points would be established according to following criteria, namely minimal thresholds per area in question.

<table>
<thead>
<tr>
<th>Current number of Small Domestic Customers</th>
<th>Proposed minimum threshold for resale point</th>
<th>Threshold ratio in terms of existing Small Domestic Customers</th>
<th>Date of establishment of existing pilot resale points</th>
</tr>
</thead>
</table>

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Resale points are equipped with resources provided by UNELCO, including computer hardware, software, chip card readers and a required data connection to UNELCO’s information system. Staff at such resale points undergo specialized training. UNELCO has established such a resale point at the Taravaki Store in Mele Village on October 28 2011. The operation of the store is considered under the ongoing prepayment meter pilot trial in Mele Maat and was established in response to the Authority’s urging that the issue of additional resale points should be addressed.

According to UNELCO’s latest submissions approximately 60% of refills in the pilot area are conducted at the store. Since the store was established the average refill amount has decreased from approximately 900 Vatu to 700 Vatu. This indicates a reasonable adoption rate and confirms customer demand for on-site resale points.

The Authority has received stakeholder submissions noting that if resale points can be established for the proposed prepayment meter system, decentralized payment points may be feasible as well in order to better serve postpayment customers. According to consultations with UNELCO, such postpayment payment points would be more costly, however no specific figures or evidence has been provided to this effect.

The Authority had previously also raised concern about the potential costs of resale points and how they would impact the tariff. This issue is further discussed in section 2.4.

2.5.4. Access to affordable prepayment recharges

The minimum amount for a recharge during the trial period was set to 100 Vatu.

In its March 2012 Position Paper the Authority raised concerns that it had not received any additional information on the methodology on how the minimum amount for recharges would be determined going forward.

In its most recent consultations, UNELCO has indicated that it intends to maintain the 100 Vatu minimum recharge amount. The Authority accepts this proposal, conditioned that the number of transactions does not have a significant impact on the costs of the system. The Authority would expect that the optimal scenarios would be considered under the system’s cost-benefit-analysis which is further discussed in section 2.4.
2.6. Prepayment customer target group

2.6.1. Determination of customer target group

UNELCO has expressed its intention to provide its prepayment meter system services across all low voltage tariff categories and particularly target Small Domestic Customers as part of a wider rollout across its three concession areas.

UNELCO has not provided any trial findings that would support the rollout in categories other than for Small Domestic Customers, but has reasserted in its most recent submissions that it intends to offer prepayment options across its tariff categories.

UNELCO has also referenced customer requests, which it collected at its head office and at village locations by questioning customers, whether prepayment meters would be desired or not. No other background materials that may have been shared with customers, has been provided to the Authority.

Having reviewed these submissions the Authority finds that UNELCO has not provided any statistically significant findings that would validate that the prepayment meter system is demanded by customers in Port Vila or how claimed benefits would specifically apply to the selected target group.

The Authority finds UNELCO’s claims on targeting unsubstantiated.

2.6.2. Customers responses to the trial

As part of the Mele Maat trial UNELCO conducted a Customer Survey Questionnaire titled Impact Assessment Survey Questionnaire of Prepaid [sic] Electricity Meters and presented the results in its trial findings submission to the Authority.

The Authority has analyzed the survey and outlined deficiencies thereof in its March 2012 Position Paper.

In its submissions, UNELCO questioned, why the Authority has not conducted its own survey at an earlier stage, given the fact that the survey conducted by UNELCO was found to be flawed. Other stakeholder submissions have suggested that an independent entity be appointed to conduct a survey of pilot participants, if required.

Given that UNELCO’s submissions did not include any specific additional information in regards to trial participant responses, the Authority’s position on the surveys conducted thus far remains unchanged. If required for the final decision, the Authority will take into account stakeholder submissions received in regards to additional independent surveys to be conducted.
2.7. Conditions of customer agreements

Under the rules of the relevant contracts, UNELCO must provide electricity services at any person's request within the concession area, while the person requesting the service may have to pay a proportion of the costs involved in establishing such a connection. Once established, the customer signs on to a customer agreement that establishes the rules for the services to be provided.

The contracts state that the format of such a customer agreement must be “agreed upon by the Concessionaire and the Grantor”.

Port Vila, Section 13.65. of the Specifications:

The agreement for the supply of electrical energy shall be established in the format of a subscription form in conformity with the model which will be agreed upon by the Concessionaire and the Grantor.

The current customer agreement does not include any rules that address the provision of electricity services under a prepayment meter system. Further, and in response to the Authority’s request for information in regards to the existing prepayment meter system in Malekula and Tanna, UNELCO has not provided the Authority a customer agreement specimen that has been agreed to in accordance with the above clause.

A modified and approved agreement for prepayment services would clearly outline the rights and obligations for both the utility service provider and the customer. This would include, for example, UNELCO’s claimed volunteer nature of the prepayment scheme, or any charges that would be entailed when switching from prepayment to postpayment billing, amongst others.

In its response to the Authority’s March 2012 Position Paper, UNELCO acknowledged that modifications to the existing customer agreements would be required and expressed agreement with the Authority’s position.

However, the Authority has not received any submissions from UNELCO outlining the required variations to the standard customer agreement currently in force, or a dedicated prepayment customer agreement required for it to review.
2.8. Safety and reliability

The Authority considers safety and reliability of the proposed prepayment meter system as a major evaluation criteria for the purposes of this ongoing review.

In regards to reliability, aspects under a prepayment meter system include reliability of energy supply through the electricity grid, technical reliability of the meter itself, as well as reliability of access to uninterrupted supply due to factors specific to the prepayment billing method.

While the issue of reliability of energy supply through the electricity grid does apply to prepayment meter systems, it equally applies to postpayment meter systems also and is therefore not considered as part of the specific review of the prepayment meter system in Mele Maat.

The technical reliability of the meter was one of the criteria that was set out to be examined in the pilot trial conducted by UNELCO in Mele Maat.

UNELCO claims that the trial has supported their assumption that the meter in question (Star Instrument Co., Ltd, China, Model No.: DDSYF23D) can be considered as technically reliable, that the meters have been performing in-line with respective performance specifications and that equipment has passed internal UNELCO bench testing and that it fulfills international manufacturing standards. The Authority finds the outlined approach of having tested for technical reliability as acceptable, as long as UNELCO provides evidence for the aforementioned evaluations conducted by UNELCO. Thus far the Authority has not received such specific information.

The reliability of access to uninterrupted supply is very much dependent on the customer interactions along the recharge cycle. These are discussed sections 2.3. and 2.5.

In regards to safety issues of the prepayment meter system, UNELCO has previously provided the Authority with the following statement, the nature of which was reiterated in its most recent submission in response to the Authority’s March 2012 Position Paper:

Letter from UNELCO Managing Director dated 25 January, 2011

I don’t think we addressed yet the specific issue of safety in relation to the prepayment meter. Dogs bitting [sic] and mugging is recorded as being the main cause of accidents among our employees and especially meter readers, in our three subsidiary of the South Pacific region. (Vanuatu, New Caledonia, Tahiti). Recently one of our meter readers was seriously bitten on his arm and had a 10 days sick leave.

During consultations UNELCO has accepted that there may be other safety areas that may need to be considered or specifically ruled out as a safety hazard, for example lack of routine monthly inspections of meter sites. Thus far however, UNELCO has not provided the Authority any further submission specifically addressing potential safety issues or an outline of lack thereof.
2.9. Meter data display and collection

UNELCO has claimed that the proposed prepayment meter provides customers additional benefits through its digital display technology.

The digital display of each prepayment meter can provide a range of data and information. Technical specifications shared with the Authority list up to a hundred data items that can be displayed, including information on consumption, peak consumption, purchase histories, current credit balance, overdraft status and tranche tariff intervals, just to name a few. The utility can program the meter to include any number of data items to be displayed. The customer can then loop through the various information items by code and read the relevant information on the display.

UNELCO claimed that these features are demanded, understood, well received and utilized by its customers during the pilot trial. However, UNELCO has not provided the Authority with any evidence to support this claim. Additional background on this issue can be referred to in the Authority’s Prepayment Meter System Position Paper, March 2012.

In its most recent submissions UNELCO has suggested that the Authority specify which fields should be displayed to the customer’s benefit.

The Authority clarifies that it can only take into account information and specifications that are provided to it during the consultation process, by the utility or others, in order to reach a decision on whether the proposed system is in the long term interest of electricity customers. It is outside the scope of this review for the Authority to provide guidance to the utility in regards to the design of the prepayment meter system. The Authority finds that UNELCO has not supported its claim that the meter features are demanded, effectively utilized and its benefits fully understood by customers.

The Authority also finds that with the advent of such new technology, UNELCO will have access to more detailed data, as data items that are displayed to the customer, are also stored to the customer’s chip card and reported back to UNELCO’s information systems. As the Authority questioned UNELCO’s privacy policy to this regard, UNELCO claimed that its corporate privacy policy would suffice to address such issues, a copy of which has not been provided to the Authority.
2.10. Management of electricity consumption

Monthly electricity bills are calculated based on various factors, including a base tariff set by the Authority, a monthly indexation of this base tariff for changes in variable costs, the tariff category the customer has subscribed to and most importantly the actual level of consumption.

A customer can reduce the costs of electricity by managing his consumption. For example, replacing existing appliances with more energy efficient ones or ensuring that devices are only powered when they are in use can achieve lower consumption and thus lower electricity bills. This concept is commonly referred to as energy conservation.

Previously during the consultation process, UNELCO claimed, and in response potential customers assumed, that the proposed prepayment meter system provides, as one of its benefits, better consumption management options for its customers. UNELCO claimed that this is achieved through monitoring options provided by the prepayment meter on its digital display, as well as incremental budgeting of customers’ individual recharge cycles.

In a customer survey conducted by UNELCO during the prepayment meter system pilot trial, customers in Mele Maat voiced satisfaction that the prepayment meter system had reduced their electricity bills. UNELCO has publicly disseminated this positive feedback on numerous occasions, creating an impression that the prepayment meter system pilot and the perceived reduction in electricity costs were causally related. This is reconfirmed through comments customers have provided in the comments section of customer requests UNELCO has shared with the Authority as part of its submissions.

The Authority requested information from UNELCO on whether UNELCO had collected statistically significant evidence during the prepayment meter trial that would support claims that prepayment meters provide for lower consumption levels.

During the consultation process UNELCO acknowledged that statistically significant information was not available and that determination of potential consumption savings due to the use of a prepayment meters was inconclusive.

The Authority agrees with UNELCO and refrains from considering such aspects for the purposes of the review going forward.
3. Background and chronology of events

The Authority has undertaken extensive consultations with stakeholders, including UNELCO, in regards to the introduction of a prepayment meter system throughout UNELCO’s concession areas. These consultations evolved from UNELCO’s first request for the introduction of a limited prepayment meter system trial to consultations over trial findings and then discussions around a wider roll out. Along this process and in addition to consultations around the substance of a prepayment meter system roll out, the Authority has also notified UNELCO of at least one breach of the concession agreement, provided the Government of Vanuatu clarifications on the process for meter system approvals and has advised donors in regards to projects that included investments in prepayment technology. This chapter provides a summary of events that outlines all relevant interactions up to date.

For reference purposes each point is indexed (in brackets) to the actual communication under the appendices of the Authority’s March 2012 Position Paper.

[A1] On 17 April 2009, UNELCO wrote to the Authority seeking approval to undertake a prepayment meter technology trial in Mele Maat, Port Vila concession area. UNELCO’s proposal stated the following objectives:

On the customer side:

Evaluate the appreciation and level of satisfaction of our customers on this prepayment system;
Evaluate the easiness of use and the appropriation of the system by our customers; and
Evaluate the saving in energy consumption versus the previous system.

On UNELCO side:

To confirm the easy replacement of the existing meter box by the new meter box on our existing posts and fittings;
To validate the suitability of DDSY23 prepaid meter, in terms of technology (accuracy, reliability, maintainability, UV and water resistance etc.) and associated software (pricing management);
To validate the metering system management according to existing pricing system (mixture of fixed charge and step tariff), which couldn’t be managed by the old model of prepayment meter;
To validate the compatibility of the pre-paid system with our existing billing software system; and
To evaluate the saving in terms of meter reading, billing, disconnection/reconnection costs.

In addition UNELCO provided the Authority with the manufacturer’s catalogue and specifications for the STAR multi-tariff prepayment meter energy meter, which it proposed to use in the trial.

[B1] In June 2009, the Authority wrote to UNELCO approving the prepayment meter trial on the basis of an economic assessment to be conducted by the Authority subsequent to the successful completion of the trial in Mele Maat.
The Authority published its Prepayment Meter Technology Trial Review Issues Paper for consultation. The paper set out the assessment criteria and process for the trial and invited stakeholders to comment and provide feedback on any of the issues relating to the trial. Further, the issues paper set out requirements for UNELCO to furnish the Authority with both technical and economic justification for prepayment meter technology implementation and acceptance by consumers and interested stakeholder.

On 15 July 2009, UNELCO conducted its first public consultation meeting in Mele Maat, informing the public of their intention to trial the prepayment meter system.

The Authority was led to believe that the trial would commence in August 2009, however, UNELCO informed the Authority in January 2010 that the trial was under process with 105 meters being installed. UNELCO further informed the Authority in its letter dated 21 January 2010 that the feedback period was not sufficient to confirm the reliability of the meters which had been installed in December 2009.

In February 2010, the European Commission issued its ACP-EU Energy Facility Grant Application Form 10th European Development Fund relating to the provision of affordable solar electricity to the peri-urban poor of Port Vila; the applicant being the Ministry of Lands Geology Mines and Water Resources and the project partner being UNELCO. The project objectives were, among other things, to increase access to electricity services to customers in the peri-urban area of Port Vila (Manples and Prima), reduce Vanuatu’s dependence on diesel fuel for electricity generation, increased renewable energy, energy efficiency and reduction in the bill of Small Domestic Customers using less than 60 kWh/month by 35 percent. Parts of the application propose the introduction of prepayment meters.

Note: Information regarding the ACP-EU Energy Facility Grant Application was not received by the Authority until September 2011 when representatives from the Authority met with delegates of the European Union in Port Vila. Subsequent advice was provided to the EU in September 2011 by the Authority.

In May 2010 the Authority issued its Electricity Tariff Review Final Decision. The decision set out the Authority’s recommendation for the new base tariff to be applied by the utility to all customers within the concession areas. UNELCO contested the Authority’s decision, which resulted in arbitration and final award being made in April 2011.

On 17 June 2010, UNELCO wrote to the Authority advising it that UNELCO would apply from July 2010 rate, a discount of 40% on the 1st tranche of the tariffs (Rate 1) (0 - 60 kWh) of its small domestic consumers.

This reduction applied from July 2010 until April 2011, being the period of arbitration until the final award was made. Following the award made by the panel of arbitrators, Small Domestic Customers continued to benefit from the reduced tariff in accordance with the the final decision.

On 3 September 2010, UNELCO submitted its first prepayment meter trial report to the Authority. Appendix H1 presents the report received from UNELCO.
UNELCO wrote to the Authority on 25 October 2010 seeking approval to use prepayment meters on the basis of its submitted report. In its letter UNELCO stated that:

UNELCO seeks your cooperation and approval within 30 days from today to close a long process of validation requested by URA and started early 2009, failing which we will have no alternative but to consider our rights and remedies under the concession and/or the URA Act 2007.

On 3 November 2010 the Authority replied to UNELCO’s letter dated 25 October stating that the Authority was currently reviewing the materials and would subsequent to its review develop its decision paper for consideration by its Commission.

Following a visit to Mele Maat by UNELCO representatives and Authority staff, UNELCO provided the Authority with the Operation Manual of Handheld PC and Single-phase and Three-phase Multi-tariff Energy Meter on 3 December 2010.

On 17 December 2010 the Authority wrote to UNELCO seeking further clarification on specific issues.

On 25 January 2011 UNELCO submitted its summary response to the additional questions sought by the Authority. Appendix O1 details UNELCO’s submission and responses.

Following a review of the material submitted by UNELCO the Authority again wrote to UNELCO requesting further clarification on a number of outstanding issues that had not been satisfactorily addressed. In its letter dated 11 February 2011, the Authority requested the following information:

Having reviewed your submission, we are now seeking additional information on following points:

Further meetings were conducted in February between the Authority and UNELCO, in which the Authority sought to clarify UNELCO’s responses to the questions and issues raised by the Authority.

- **RE 1 and 2:** Please outline what type of customer communication measures will be taken in response to issues outlined under Questions 1 and 2;
- **RE 1 and 2:** Please outline concretely which specific information UNELCO intends to display on the meter and how usage of the meter will be communicated to the customer;
- **RE 3:** Please outline concretely the timeline and respective criteria (connection thresholds, geographic distances) upon which prepayment resell points will be established;
- **RE 6:** Please provide detailed cost estimates and potential impacts on your operating costs (positive or negative) in regards to the implementation of the proposed prepayment scheme;
RE 7: Please provide, as previously requested, the source and methodology used to derive the monthly consumption figures of PCD customers in Mele Maat as outlined in the submitted table. To the same effect, please outline to which extent customers had been disconnected (0 balance) during the pilot project duration;

RE 8: Please provide the respective agreement and/or amendment to the concession agreement with GoV regarding the currently implemented prepayment tariff in Malekula and Tanna; and

RE 10: As question 10 was not answered satisfactorily, please share whether UNELCO intends on drafting or has already drafted a roll out plan for the development and deployment of prepayment meters and if so, does the roll out plan address issues that have been discussed with the URA in the course of the prepayment application.

[S1] On 28 February 2011, UNELCO submitted its response to the Authority’s request for information and clarification dated 17 December 2010 and 11 February 2011. In its letter, UNELCO provided complementary responses to the Authority’s requests for clarification and proposed that Authority staff meet with Mr Toshi Yasuda to discuss their submission further. Full details of UNELCO’s submission and reply is provided in Appendix S1.

[T1] On 17 March 2011 the Authority wrote to UNELCO in response to their submission dated 28 February 2011 (Ref N 156/11/U/wt/AC) specifically setting out its position regarding the information provided to it by UNELCO. The Authority stated that:

As discussed during our last meeting on 14 February 2011, we are seeking a series of clarifications where we believe questions we had posed previously, have not been addressed sufficiently...

The Authority went on to point out its position and made the following statements of clarification in its letter to UNELCO:

The URA would like to ensure that customer complaints voiced during the pre-payment meter pilot phase in regards to long travel distances to prepayment resell points are addressed by UNELCO before a potential roll out of a prepayment meter scheme. Is UNELCO intending to commit to establishing a series of resell points in the 5 proposed prepayment coverage areas, and if so, at what customer adoption rates? If customer adoption rates are set as a requirement for the establishment of resell points, how are the optimal levels of the respective thresholds determined?

The URA is of the opinion that a cost-benefit analysis of a potential roll out of a pre-payment meter scheme is required in order to wage potential impacts on the overall customer tariff. It also considers that UNELCO would have to take into account gradual adoption rates of a new technology and various adoption scenarios. Given your recent submission, we understand the cost implications of the prepayment meter scheme at an adoption rate of 5000 customers, which is an optimal best case scenario. What are the economic cost-benefit implications, taking into account gradual potential customer adoption rates over time, and associated costs or cost savings? Can UNELCO estimate whether the roll out of the pre-payment scheme will not have a negative impact on customer tariff, and if it may do so, can it justify that the benefits to the consumer outweigh tariff increases? How and over what time frame will the costs related to the replacement of meters for existing customers be funded?
In order for the URA to understand customer implications in regards to continued access to electricity, in our last communication we inquired whether UNELCO could share the number of customers that “had been disconnected (0 balance) during the pilot project duration”. We have received a table outlining customers being disconnected for meter tampering and being cut-off due to overloading. However, what we were actually interested in was to ascertain how many occurrences of cut offs and length thereof customers experienced due to hitting a 0 (zero) balance and thus being cut off from electricity due to insufficient balance.

Lastly, as you sought clarification on the purpose of our review during our last meeting on February 14th 2011, the URA would like to point out once again, that a thorough review is required in order to ensure both technical and economic justification for pre-payment meter technology implementation, as well as acceptance by consumers and interested stakeholders. We are confident that UNELCO accepts that the nature of prepayment meters, which must, unlike conventional meters, to a large extent be operated by the end customer, as well as potential impacts on customer tariffs, requires such due diligence.

We greatly appreciate your cooperation and look forward to your response, upon which we may complete our recommendations on a Final Decision to the Authority’s Commission.”

[U1] On 29 March 2011, UNELCO provided its response to the Authority’s further requests and clarifications addressing the issues of resale points, cost benefit analysis, cut off due to zero kilowatt-hours (kWh) and safety issues. Appendix U1 sets out UNELCO’s submission dated 29 March 2011.

In addition to the existing review of the prepayment meter system, the Authority had also commenced an assessment of UNELCO’s customer billing processes.

[V1] On 1 May 2011, following numerous requests for information by the Authority, it wrote to UNELCO seeking its cooperation in providing relevant customer billing data, specifically stating:

I refer to recent communications between the URA and UNELCO, from the 24 April 2011, regarding our continued request for information in relation to customer billing data. The Authority again seeks your cooperation in providing the following information:

Billing and meter reading data, specifically

(1) for the period from 1 January 2006 to 31 December 2010
(2) for the concession areas of Port Vila, Luganville, Malekula and Tana Islands
(3) including following data items
   (3.1) unique index identifying each customer
   (3.2) meter readings (in kWh) and respective meter reading dates per customer
   (3.3) subscribed or read demand rates (in kVA)
   (3.4) classifications of tariff categories and any changes therein per customer
(4) for all tariff categories, and
Additionally I invite you to submit any other comments, concerns or suggestions you may have related to the ongoing assessment of tariff structures.

I draw your attention to the following provisions within the Utilities Regulatory Authority Act No. 11 of 2007. That is, in accordance with section 13(2) the Authority has requested that UNELCO furnish it with the specified information detailed above relating to regulated services. The Authority requested the above information on 24 April 2011 to enable it to assess the data prior to the implementation of the new tariff. Further, I refer you to section 20(4) of the Act, and more specifically to Part 4 section 21(6)(a) and 21(9) should information not be provided as requested. The Act provides for 21 days to produce the requested information. There is 14 days remaining from the date of the original request and therefore the data must be provided to the Authority on or before 15 May 2011.

[X1] On 16 May 2011 the Authority notified UNELCO of its concern that UNELCO had installed prepayment meters in the Port Vila concession outside the Mele Maat trial area without prior approval by the Authority, specifically in the Pango area. The Authority proceeded to inform UNELCO of its breach of contract and subsequent breach of the Utilities Regulatory Authority Act No. 11 of 2007, and requested that UNELCO remedy the breach.

[Y1] UNELCO acknowledged the Authority’s Notice of Breach and set out its reasons for the breach and proposed remedy. In its letter dated 31 May 2011, UNELCO claimed, among other things, that

the installation of the prepayment meter at Pango was made for the purpose of providing lights to the football field and community area of Pango.

The Authority was of the view that the reasons put forward by UNELCO did not support or justify the non-compliant activity and that UNELCO had clearly ignored the requirements of the Act and failed to comply with the contracts. UNELCO subsequently remedied the breach and set out its position as outlined in Appendix Y1: UNELCO submission to Notice of Breach of Contract - Installation of Prepayment Meters.

[Z1] The Authority continued to review the material provided to it and further requested that UNELCO furnish it with additional material relevant to the review, specifically relating to the prepayment meter tariff. In its letter dated 14 July 2011 the Authority set out the following requirements stating:

The URA has requested on numerous occasions, most recently on 13 June 2011 in an email titled “FW: Unelco: May and June Tariff”, that UNELCO submit information on the contractual basis for the “P-Compteurs Prepaiment” tariff as outlined in the monthly tariff submissions titled “Tarification de l’Energie Electrique.

UNELCO has not responded to the URA’s request. The Authority seeks your cooperation in providing it with the contractual basis for this tariff category.

I draw your attention to the following provisions within the Utilities Regulatory Authority Act No. 11 of 2007. That is, in accordance with section 13(2) the Authority has requested that UNELCO furnish it with the specified information detailed above relating to regulated services.
Further, I refer you to section 20(4) of the Act, and more specifically to Part 4 section 21(6) (a) and 21(9) should information not be provided as requested. The Act provides for 21 days to produce the requested information from the date of this letter.

[C2] By 29 July 2011, UNELCO had provided the relevant information requested by the Authority in its letter dated 14 July 2011, which provided the following background information:

a. On 7 March 2001 (ref. 224/01/JFB/aw) UNELCO approach the Government regarding, amongst other issues, approval for installing prepayment meters at a cost of approximately 11,000 VUV in Tanna and Maleklua.

b. On 4 April 2001 (ref. 2B/11/14/04/01) the Honorable Minister of Lands approved the proposal in principle.

c. On 30 April 2001 (ref. 359/01/JFB/aw) UNELCO provided the Department’s Energy Unit with further details as to the implementation of the prepayment scheme as follows:

   i. “we are prepared so as to promote the launching of this product, to fix the price of the [prepayment] cards, for the first year, on the basis of the first trench [sic] of the PCD tariff [PCT-T1] for 5 Amp meters and on the P price basis for the 10 Amp meters”

   ii. the proposals outlines further benefits, including no limit on tranche usage and removal of fixed fees.

   iii. UNELCO further proposes for the system “to be applied in our PORT-VILA and SANTO concessions”

   iv. recharge cards available valued at 30 kWh at costs according to the proposed tariff plus a fee of 60 VUV per card

   d. On 29 June 2001 (ref. MOL/2B/11/19/SM/rn), the Honorable Minister of Lands informs UNELCO of the outcomes of the 21 June 2001 Council of Minister decisions, including:

      i. “4) the Government grants consent for UNELCO to introduce the prepayment meter system of 5 and 10 amps.”

[E2] On 21 August 2011 UNELCO wrote to the Authority informing it that it had received a letter from the Minister of Lands, Geology, Mines and Water Resources approving the use of prepayment meters and that

unless the Authority specified otherwise, UNELCO would install prepayment meters in the areas of Manples and Blacksands.

[F2] On 23 August 2011 the Authority wrote to UNELCO in response to UNELCO’s demands and noted:

Further to your letter dated 21 August 2011 ref: 1020/11/U/PME/aw, including the attached letter from the Ministry of Lands Geology Mines and Water Resources dated 4 August 2011, the Authority directs you to the following provisions of the Utilities Regulatory Authority Act No 11 of 2007 (the Act) and relevant clause within the Port Vila Concession Agreement, which states:

Section 20(1) of the Act:

“The rights exercisable by the Government in the contract described in Part A of Schedule 1 are assigned to the Authority”
and in particular

Section 11(57) of the Port Vila Specification (with emphasis added):

“Apparatus for measuring and controlling energy and power shall be of one of those approved by the competent authority of VANUATU…”

The Authority is empowered as the competent authority with the relevant powers under the Act to approve or not approve such metering.

As you are well aware, the Authority has not granted UNELCO the requisite approval to install pre-payment meters in the Port Vila concession, other than for a limited number of customers for a pilot trial period in the Mele Maat area.

The Authority further notes your continued breach of the Port Vila concession agreement specifically s.11 (57) and the Act with the use of such meters in the Pango area.

The results of the Mele Maat pilot are currently being studied and a decision will be issued by the Authority’s Commission in due course.

Given the described circumstances, the Authority requires that UNELCO comply with the direction of the Authority until such time that the Commission has fully assessed all the material that has been requested by it from you.

[G2] On 14 September 2011 the Authority wrote to the Attaché (Coorporation) - Programme Officer of the Délégation de l’Union Européenne au Vanuatu, setting out its response to questions raised by the EU in regards to the provision of affordable solar electricity to the peri-urban poor of Port Vila. Specifically, the Authority provided information in regards to the required approval process of prepayment meters and how the process was ongoing. Appendix G2: sets out the Authority’s advice and response dated 14 September 2011.

[H2] From the first of October 2011 going forward, UNELCO has increased its fees for dis-/reconnections from 990 Vatu to 1550 Vatu, an increase of ~60%.

[I2] In October 2011, UNELCO established the first prepayment meter sale point in Mele Maat within the trial area. The provision of resale points was first raised indirectly in the Authority’s Issues Paper June 2009 and specifically in UNELCO’s Report dated 3 September 2010. Since that time UNELCO took no action to establish a resale point within the trial area until October 2011.

[K2] On 23 November 2011, following the Authority’s request for information in May 2011 and subsequent email communications, UNELCO submitted its customer data from 2008 to 2010 reprocessed as requested by the Authority. However, the data did not include any prepayment information, UNELCO providing the following reason that

as for prepayment meters Libergy installed in Malekula and Tanna up to 2010, unique index identifying each customer, meter readings (in kWh) and meter reading dates, do not exist

[J2] Further, on 23 November 2011 the Minister for Land, Geology, Mines and Water Resources the Honourable Steven Kalskau, MP wrote to the Authority demanding that the Authority make its decision in favour of UNELCO.
[L2] On 13 February 2012 the Authority replied to the Minister’s demands noting among other things the relevant provision of the Act relating to the Authority’s powers and functions in regards to metering apparatus and approvals.

[O2] On 23 March 2012 the Environment Unit Department issued a public notice expressing its intent to award a supply contract to supply Prepayment meters in Malekula with financial assistance from the 9th EDF programme of the European Communities.

[P2] [M2] On 30 March 2012 the Authority notified UNELOCO of its concern that UNELOCO had installed prepayment meters in the Port Vila concession outside the Mele Maat trial area without prior approval by the Authority, specifically in the Teouma area. The Authority proceeded to inform UNELOCO of its breach of contract and subsequent breach of the Utilities Regulatory Authority Act No. 11 of 2007, and requested that UNELOCO remedy the breach.

[Q2] On 30 March 2012 the Authority published its Electricity Prepayment Meter System Position Paper March 2012, and commenced its public consultation phase allowing submission to be provided to the Authority by 31 April 2012.

As part of the above mentioned consultation phase, the Authority reached out to stakeholders and communities to explain its decision in a transparent manner and in full detail. This included a public forum in Mele on 10 April 2012, radio tokbak shows on 23 and 25 April 2012 and meetings with stakeholder groups including the Department of Women’s Affairs on 25 April 2012.

During the same period the Authority received a series of written submissions from stakeholders which are outlined in the appendices and have been considered in the context of this paper.

On 27 April 2012 UNELOCO requested the Authority to allow for an extension to provide a submission in response to the Authority’s Position Paper by 3 March 2012, which the Authority granted.

On 3 May 2012 the Authority received UNELOCO’s submissions in response to the Authority’s March 2012 Position Paper. An english draft translation of this french version was received on 15 May 2012.

On 15 June 2012 UNELOCO presented to the Authority’s Commission details around its plans for the proposed prepayment system allowing UNELOCO and the Authority an opportunity to address clarifications around UNELOCO’s response to the Authority’s March 2012 Position Paper.

On 20 June 2012 the Authority conducted a meeting with UNELOCO’s management to discuss the issues that had not sufficiently been addressed by UNELOCO in response to the Authority’s March 2012 Position Paper.

On 20 August 2012 the Authority published its Electricity Prepayment Meter System Draft Decision August 2012, this paper.
4. Next steps

This document sets out the Authority’s draft decision on the introduction of the proposed prepayment meter system, and invites comments from all stakeholders.

The next steps in the process are:

● Consultation. The Electricity Prepayment Meter System Draft Decision will be made available to the public and all interested stakeholders. The Authority will invite submissions on the Draft Decision from the public, government departments, UNELCO and all other stakeholders.

● Final Decision. Based on the Draft Decision and the consultation process, the Authority will formulate its final decision on prepayment meter system.

**Indicative Timeline**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication of the draft decision</td>
<td>31 August 2012</td>
</tr>
<tr>
<td>Submissions to draft decision by</td>
<td>17 September 2012</td>
</tr>
<tr>
<td>Final decision</td>
<td>28 September 2012</td>
</tr>
</tbody>
</table>
Appendix

Public Consultations

Public Forum in Mele, Efate at Imere Presbyterian Memorial Church Mele (10 April 2012)
Questions:
- How do we compare post- and prepayment meters with regards to the current price (tariff) structure?
- If I normally pay 5,000 Vatu on postpaid for electricity consumed will there be much difference when switching to prepaid meters - will I be paying more or less?
- When the Copra Mill and Wind farm were being constructed we were told that there would be a decrease in our electricity bills - can the URA provide some explanation?
- We have been told that in Vanuatu the price of electricity is higher than our pacific neighbors - can the URA confirm this?
- Since December 2011 I have seen a steady increase in my electricity - is this possible or do I have a problem with my meter?
- If I were to switch to a prepayment meter system who to I see?
- Do we need to pay a deposit for prepayment meters?
- With due respect to Unelco who have been operating in Vila for a long time, we are disappointed that they do not undertake enough awareness on the services they provide and the implications. Grateful if the URA could ask them to undertake more awareness programs?
- People are interested in cheaper electricity given the ever increasing cost of living - how can the responsible authorities help?
- Could you explain how the tranches work for small domestic customer?
- During a discussion with UNELCO we were informed that Mele would be given a special tariff rate. Mele has over 5,000 people our land was dug up when the lines from the wind farm were laid - we thought that the cheaper rate would be for some sort of compensation. Will this ever become a reality or is this wishful thinking. Anyway at the end of the day what we want is cheaper electricity?
- Is there possibility for another utility to operate in Port Vila?
- The crowd is mostly from Mele - in fact there is no one from Mele-Maat. It would be good to get their viewpoint on this trial given that they are the only ones trialing the prepayment meter system
- Should there be a possibility for the trial area to be expanded then Mele Village should be included
- It is important that future consultations go through and respect village protocols

Department of Women’s Affairs, Port Vila, Efate (25 April 2012)
- Why was a resale point established in Mele instead of in Mele Maat?
- Are consultations being conducted with other communities?
- How does the issue of prepayment systems relate to gender issues?
  - Mothers have different level of understanding. Those who are educated will understand but those others with little knowledge of these issues will hardly see a difference or an issue.
  - Mothers do not know or understand the electricity rates/bill. They pay the amount stated on the bill without really thinking about what makes their bill.
  - There is a need for the utility service provider to discuss and clarify with users contract terms and conditions.
  - Some customers have access to their original contracts and some don’t.
Malakula and Tanna prepayment meter system users are still not concerned with issues of costs as they do not have many appliances they use in the house.
- Lack of education/uninformed/ lack of understanding are reasons for users to not realise and therefore not too concerned with costs of using prepayment meters.

- We understand that with a post payment system you have at least 3 weeks to review your bill and settle your account with the utility service provider, but this is not possible with prepayment meters. Once your credit runs out, you are without electricity.

Radio Vanuatu Tokbak Show (23 April 2012)
- Why is the electricity price still so expensive when the government is already providing electricity subsidies?
- Why not introduce competition in the electricity supply sector?
- Prepayment meter seems to be a good system given that the Authority look into the system and recommend changes for the benefit of customers?

FM 107 Tokbak Show (25 April 2012)

Callers called in questions from Port Vila, Mele Maat, North Efate, Santo, Tanna and Malekula:
- URA to provide recommendations to the government on the prepayment systems and for the government to follow up with UNELCO on issues raised by the URA
- Introduce competition to the electricity to aid in tariff reduction. With reference to the existing competitive telecommunication market
- URA to look into renewable policies to encourage utilities to promote coconut oil and wind energy
- Prepayment meter is good because customers can manage their electricity consumption
- Acknowledgement of the work of the URA in raising consumer and the public awareness of issues that relate to both electricity and water supply services
- The URA as a government body is already addressing issues related to a contract between the Government of Vanuatu and UNELCO. Why is it that the URA is established to oversee what the government should have already identified and resolved?
- How did the URA determine the excessive prepayment bills for Tanna and Malekula?
- Why is it that the URA is disregarding the fact that prepayment meter will help customers better manage their consumption?
- Why isn't the URA being localised instead of having expatriate staff?
- Why is it that the connection cost in Tanna has increased from 11000 Vatu in the first phase to 60000 Vatu in the current extension phase between Lenakel and Whitegrass airport?
- Does the Authority also regulate other utilities other than UNELCO who also provide utility services?
- Can the network be extended in Malekula to areas outside the existing network?
- Why is it that there is already a ring road around the Efate island and yet there is no extension to the villages in North Efate?
Submissions

Response UNELCO au “Position Paper sur les compteurs prepaiement” de l’URA (17 April 2012)
REPONSE UNELCO AU « POSITION PAPER SUR LES COMPTEURS PREPAIEMENT » de l’URA;

A - Pouvoirs conférés à l’Office de Régulation (URA).

UNELCO a signé le 15 août 1986 un contrat de Concession avec le Gouvernement de Vanuatu pour la fourniture de l’électricité de Port Vila.

Ce contrat précise en son article 11(57) - Compteur que « les appareils de mesure et de contrôle de l’énergie et de la puissance seront de l’un des types approuvés par le service compétant et fournis par le Concessionnaire »

Dans l’esprit de ce contrat de droit Français (qui s’applique au Vanuatu selon l’article 93(2) de la version française de la Constitution du Vanuatu ou l’article 95(2) de sa version anglaise), le service compétant auquel il est fait référence est le service des Poids et Mesures (Service des Mines en France ou National Measurement Office en Australie) dont le rôle est de s’assurer que les appareils de mesures comptent l’énergie avec exactitude, et une précision relative suffisante par rapport à un étalon.

Lors de la ratification de la loi sur URA Act n°11, ces pouvoirs de contrôle ont été transférés du Gouvernement à l’URA.

A cet égard l’avis de l’URA est sollicité pour confirmer que l’appareil de mesure de l’énergie proposé par le Concessionnaire comptabilise les kWh (l’énergie) avec une précision suffisante, et conformément à la structure tarifaire en place et validée par le tribunal arbitral de Melbourne le 28 avril 2011.

La prise en compte de critères liés à la structure tarifaire, le risque de coupure, la facilité d’utilisation, la confidentialité des données, ne devraient pas entrer en considération dans la démarche d’approbation du compteur.

Bien que la confirmation de cette conformité n’apparaîsse pas clairement dans les 92 pages du rapport de l’URA, celle-ci a été confirmée lors de la présentation publique faite au Village de Mélé le 11/04/2012 au travers du slide ci-dessous, confirmant que le compteur à prépaiement proposé comptabilise les kWh consommés par nos clients de la même manière que le compteur conventionnel:

De même la demande d’approbation UNELCO concerne l’utilisation d’un type de compteur à prépaiement pour sa seule Concession de Port Vila.

La prise en compte de critère d’évaluation qui s’appliquerait à TOUT le Vanuatu ne devrait pas entrer en ligne de compte pour l’approbation du Régulateur. « To the advantage of all the electricity customers in Vanuatu »

URA Chairperson statement dated 3 April 2012.

B - 2.3 Evaluation of existing prepayment tariff in Malekula and Tanna.

Ce chapitre est hors sujet et sans rapport avec l’objet de la demande du Concessionnaire, qui est d’enquérir l’approbation de l’URA sur l’utilisation d’un type de compteur spécifique à prépaiement pour sa Concession de Port Vila.

Le régulateur fait en effet référence à un autre type de compteur à prépaiement (Libergy) installé dès 2001, dans nos concessions de Tanna et de Malicollo.

Cependant nous ne pouvons laisser sous silence les allégations et informations erronées que ce chapitre 2.3 contient.
Les compteurs à prépaiement (Libergy) de Tanna et Malicollo ont été installés lors de la création des 2 Concessions rurales à partir de 2001.

Pour limiter les coûts de fonctionnement de ces Concessions, il avait été décidé, en accord avec le Gouvernement notre Concédant, d’avoir recours à l’utilisation d’un système à prépaiement.

Pour s’accommoder des possibilités techniques limitées des compteurs à prépaiement de l’époque (gestion d’un tarif mono uniquement), un tarif spécifique uniforme a été proposé.


**Ce tarif fait encore aujourd’hui parti de la structure tarifaire d’UNELCO et est fourni tous les mois à l’office de régulation.**


A aucun moment au cours de cette révision tarifaire que ce soit lors de nos réunions de travail, dans le « position paper » ou dans la « final decision» le Régulateur n’a proposé de modifier voire de supprimer ce tarif prépaiement pour les Concessions de Tanna et Malicollo.

La décision finale du régulateur de Mai 2010 (Electricity Tariffs review – final decision) en sa page 6 ci-dessous fait référence à ce tarif et propose une diminution de 6.8 % de ce tarif.

La décision finale ne propose aucune modification de ce tarif spécifique.

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<td>866</td>
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<tr>
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<td>1,118,064</td>
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</tbody>
</table>

Comment le régulateur peut-il aujourd’hui annoncé au public qu’il a [fait une découverte très grave] - « Moreover, and this is a very grave discovery that trouble the Authority : Malekula ad Tanna prepayment customers […] have been paying up to three times…” concernant les tarifs de Tanna et Malicollo, alors que ce tarif a été validé dans sa décision finale ...

La différence de prix entre ce que payent les clients de Tanna équipés de compteur libergy et ceux de Port Vila en tarif Petit Consommateur Domestique (PCD) est lié à la structure tarifaire différente et non au type de compteur utilisé (conventionnel ou prépaiement).

Le compteur proposé (STAR) permettra justement de faire en sorte que tous les clients des Concessions UNELCO puissent bénéficier du tarif social PCD avec le prépaiement.

**Laisser entendre que les clients de ces 2 iles équipés de compteurs à prépaiement payent beaucoup plus cher que ceux de Port Vila parce qu’ils sont en prépaiement consiste en une manipulation de nos clients.**

De plus depuis Novembre 2012 tous nos clients de Malicollo sont équipés de compteurs STAR et bénéficient donc tous du tarif PCD comme ceux de Port Vila.

D’ici la fin 2012 tous nos clients de Tanna seront eux aussi équipés de compteurs STAR.
Ecrire que ces clients en prépaiement payent plus cher leur électricité que ceux de Port Vila équipé de compteurs classiques est non seulement induire en erreur nos clients mais de plus faux pour Malicollo.

C - 2.4 Ongoing evaluation of existing tariff

Encore une fois ce chapitre est sans rapport avec l’objet de notre demande d’approbation d’un type de compteur.

L’affirmation gratuite, déjà plusieurs fois insinuée par l’URA, selon laquelle l’origine des mécontentements des clients de Luganville (pour ne pas parler d’émeute devant l’agence VUI), à la reprise de l’exploitation par VUI début 2011, serait due à une mauvaise catégorisation de clients par UNELCO, est une affirmation sans fondement et sans preuve.

UNELCO a mis en application cette même structure tarifaire pour ses clients de Port Vila, Tanna et Malicollo en Mai 2012 sans aucun problème ni aucune plainte de la part de ses clients. UNELCO a géré cette transition tarifaire avec une communication appropriée auprès de ses clients et une étude au cas par cas des clients qui pourraient être affectés par la nouvelle structure.

Apparemment VUI n’a pas procédé de la sorte. Bien au contraire tous les clients de Luganville ont reçu le message suivant sur leur première facture d’électricité :

“Tankio tumas for the opportunity to serve the people of Esperitu Santo. Vanuatu Esperitu Santo KHW price is 6.8 % less than Efate”.

On comprend alors le mécontentement des clients pour lesquelles ce ne fut pas le cas…

Sous prétexte de ces irrégularités sur Luganville, l’URA a depuis cassé la structure tarifaire de Luganville et mis en place un tarif unique (hors client MT) d’abord progressif puis dégressif à 4 tranches.

Ces changements sont non seulement en contradiction avec la décision finale de l’URA sur les tarifs de Luganville « URA Luganville Electricity Tariff Setting Final Determination (Stage 1) 23 August 2010 », mais surtout contraire à la volonté politique affirmée par le Gouvernement de Vanuatu d’un tarif uniforme entre les Concessions.(Cf ci-dessous)

As part of the Governments uniform tariff policy and in line with their desire to reduce the electricity costs of low end customers, the URA will apply the same tariff structure for Luganville as applied in the all concessions final decision as shown below:

As described in section 9 the Tariff Equalisation Mechanism is used to determine Pc.

10.2 Draft Determination

<table>
<thead>
<tr>
<th>Customer group</th>
<th>Price per kWh</th>
<th>Monthly fixed charge</th>
<th>Security deposit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Domestic Customers</td>
<td>Up to 60 kWh = 0.34 x Pc</td>
<td>None</td>
<td>70 x Pc</td>
</tr>
<tr>
<td></td>
<td>61 to 120 kWh = 1.21 x Pc</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Over 120 kWh = 3.00 x Pc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Low Voltage Customers</td>
<td>1.21 x Pc</td>
<td>5 x Pc per subscribed kVA</td>
<td>150 x Pc per subscribed kVA</td>
</tr>
<tr>
<td>(Domestic)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Licence Holders –</td>
<td>0.87 x Pc</td>
<td>20 x P per subscribed kVA</td>
<td>150 x P per subscribed kVA</td>
</tr>
<tr>
<td>Low Voltage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sports Fields</td>
<td>1.00 x Pc</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Public Lighting</td>
<td>0.54 x Pc</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>High Voltage Users</td>
<td>0.70 x Pc</td>
<td>25 x P per subscribed kVA</td>
<td>150c x P per subscribed kVA</td>
</tr>
</tbody>
</table>

Il est clair que désormais le risque pour un client de Luganville de se retrouver dans une catégorie qui ne soit pas adaptée au mieux à son profil de consommation n’existe plus, puisque celui-ci est privé de cette liberté puisqu’il n’a plus le choix !
Plus grave le tarif social dédié au petit consommateur domestique, conclusion positive importante de la révision tarifaire et volonté politique forte du Gouvernement, a été supprimé. Que vous soyez sans ressource, commerçant ou expatrié, tous payez les 60 premiers kWh au même prix préférentiel.

D - 2.5 Tranche tariff under prepayment scheme.

Le commentaire d’un de nos clients de Mélémaat repris et mis exergue par le Régulateur dans son papier « ‘feel’ they are paying more than before » représente une proportion très faible des commentaires reçus de la population interrogée lors de notre enquête et n’est pas représentative de l’avis général de nos clients. Ce qui est important c’est que dans les faits le compteur proposé facture bien le client conformément à la structure tarifaire. Et ce point a été validé par le régulateur. (cf § A)

Le régulateur s’inquiète que nos clients seront crédités de moins de kWh lors d’un refill en fin de mois qu’en début : « running an appliance in the beginning of the month cost about 70 % less than at the end of the month »

La 3ième tranche du tarif PCD progressif, dissuasive, à justement été mise en place pour interdire (ou limiter au maximum) toute consommation au dessus de 120 kWh par mois. Grâce au système prépaiement, le client dont la consommation est déjà sur la troisième tranche à la fin du mois, paie effectivement son électricité beaucoup plus chère qu’au début du mois où est appliquée la première tranche. Lorsqu’il effectue un refill, le display du compteur l’informe de la tranche dans laquelle il se trouve avant d’aller payer. Ce qui est important c’est que dans les faits le compteur proposé facture bien le client conformément à la structure tarifaire. Et ce point a été validé par le régulateur. (cf § A)

A l’inverse le client facturé en conventionnel dépassant 120 kWh sera très fortement pénalisé lorsqu’il recevra sa facture, et plus important encore perdra définitivement l’avantage de bénéficier du tarif social au bout de 3 dépassements. Ce risque n’existe pas avec le compteur à prépaiement.

Cependant il est possible de modifier la programmation du compteur pour lisser la durée de « validité » du crédit par rapport au paiement, quelque soit le moment où le client paie, en se basant sur une consommation moyenne mensuelle du client. Nous ne pensons pas que cela rende service à nos clients mais ces modalités de calcul seraient à définir avec l’URA si celui-ci le souhaite.

E - 2.6 Tariff fluctuation risk

UNELCO propose ce type de compteur STAR qui permet justement d’adapter la facturation de l’énergie de nos clients à la double contrainte d’un prix du kWh progressif mensuel et d’une actualisation mensuelle du prix de base. Ces contraintes sont dictées par le tarif, sa structure et son actualisation tels que confirmé lors de la révision tarifaire.

L’impact financier lié à l’actualisation mensuelle du tarif de base « P » est totalement marginal et ses effets tout à fait minimes sur la facture d’un client PCD. Cette variation ne représente pas plus que quelques vatus. En effet, (hors révision tarifaire qui n’intervient que tous les 5 ans, - 2.2 VUV entre Avril et Mai 2012 et les modifications successives du régime fiscal sur le gas-oil) depuis Janvier 2010, la variation maximale enregistrée du prix de base P d’un mois sur l’autre n’a jamais excédé + 2.08 VUV (mai à juin 2011). Cette variation, impacte la facture moyenne d’un client PCD consommant 73 kWh par mois d’un rattrapage maximum de 80 VUV (sur une facture de 1 988 VUV) dans l’éventualité ou le client resterait 1 mois sans effectuer de refill. (En moyenne nos clients prépaiement effectuent 2 ,7 refill par mois)

Invoquer ce phénomène pour prétendre que cela empêche le client de pouvoir piloter son budget mensuel est une tromperie.
Cependant si le réajustement à posteriori dérange le régulateur, il est possible d'enlever cette fonctionnalité. La révision intervenirait alors chaque mois, mais le client paierait le prix appliqué au moment de l’achat. Ceci simplifierait le programme de prépaiement, mais s’écartait des conditions contractuelles.

**F - 2.7 Affordable connection and Tariffs.**

1 - *Upfront cost*
En 2011, sur la base de notre dernière commande de 400 compteurs, le cout complet d’un coffret de comptage ex stock, comprenant le boîtier extérieur, les fusibles en amont et le disjoncteur est de 7 255 VUV TTC pour un coffret prépaiement et 13 910 VUV TTC pour un coffret classique.

Sur la base d’un branchement simple (raccordement à partir d’une borne, potelet et comptage à proximité du support) le coût d’un branchement prépaiement sera de 44 854 VUV et celui d’un branchement conventionnel de 39 199 VUV TTC soit 14 % moins cher.

Comme il est précisé en article 13(66) de notre contrat de concession, les clients domestiques doivent s’acquitter d’une avance sur consommation de 70xP = 3 851 VUV (base tarif de mars 2012). Cette avance sur consommation est calculée pour couvrir l’équivalent du cout moyen de la consommation d’énergie entre 2 lectures d’index : c’est à dire 30 jours (et non 45 comme écrit dans le rapport URA).
Cette avance est obligatoire avant toute mise en service pour les clients en comptage classique.

Le client en prépaiement peut, par contre, théoriquement avoir accès à l’énergie pour seulement 100 VUV. Sur la base de la consommation moyenne mensuelle d’un client PCD de Port Vila établie à 73 kWh soit un refill de 2 236 VUV TTC (base tarif mars 2012) :

Le tableau proposé par l’URA en page 28 devient :

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>In vatu (TTC)</td>
<td>Postpaid</td>
<td>prepaid</td>
<td>Savings</td>
</tr>
<tr>
<td>Typical connection cost</td>
<td>30 944</td>
<td>30 944</td>
<td></td>
</tr>
<tr>
<td>Meter box</td>
<td>13 910</td>
<td>7 255</td>
<td></td>
</tr>
<tr>
<td>Deposit for a month consumption</td>
<td>3 851</td>
<td>2 236</td>
<td></td>
</tr>
<tr>
<td>New connection cost</td>
<td>48 704</td>
<td>40 435</td>
<td>-17 %</td>
</tr>
</tbody>
</table>

Soit une économie de 17 % et non 1.92 % comme calculé par le régulateur. Ecart qui porte le cout d’accès initial à plus de 20 % si le client décide d’effectuer un refill de 500 VUV par exemple.

2 – *Customer satisfaction*
L’URA affirme que la seule raison pour laquelle les clients de Mélemaat ont exprimé leur satisfaction à l’utilisation du compteur à prépaiement et plébiscité ce système est la réduction de leur facture d’énergie due à la concomitance de notre enquête avec la baisse des tarifs mise en application à cette époque. UNELCO a appliqué de manière unilatérale et sans attendre les conclusions de la révision tarifaire une baisse de 40 % de la première tranche des tarifs PCD à partir du 1 Juillet 2010. Le sondage d’opinion a été réalisé entre le 3 et 9 juillet 2010, donc avant que les clients ne ressentent les effets de la baisse des tarifs. La satisfaction relevée par nos clients de Mélemaat est donc fondée sur leur appréciation du compteur à prépaiement avant les effets de la baisse tarifaire.

UNELCO considère l’affirmation du régulateur gratuite, sans fondement et erronée.

3 – *Misleading and deceptive information* 
UNELCO regrette qu’il n’existe nulle part dans la loi (URA Act) d’article qui, à l’inverse, puisse protéger les Utilities d’affirmations trompeuses ou mensongères de l’Office de Régulation.
G - 2.8 Costs versus benefits and impact on future tariffs

1 – Cost versus Benefit
L’investissement nécessaire pour la création d’un point de vente prépaiements est de 194 500 VUV. Le cout de fonctionnement mensuel d’un tel point de revente est de 20 000 VUV.

En 2011 UNELCO a effectué plus de 18 000 interventions de coupure ou remise en service pour impayés représentant une charge financière de 12 870 912 VUV supportée par ses clients.

Chaque mois pendant 10 jours, 6 agents releveurs dotés d’un véhicule et de terminaux électroniques de saisie portatifs sillonnent la ville pour s’acquitter de la lecture de plus de 10 000 compteurs électriques. Cette prestation représente un volume équivalent de plus de 500 heure.personne par mois.

Chaque mois UNELCO dépense prêt de 400 000 VUV en frais d’envoi de factures et de relances auprès de ses clients.

Laisser entendre que la mise en place d’un système à prépaiement pourrait engendrer une augmentation des couts de fonctionnement du Concessionnaire est pure mauvaise foi.

2 – Benefit of non payment penalty
Dans le dernier paragraphe, page 31 le régulateur estime que les frais de pénalités sont nécessaires pour les mauvais payeurs, que supprimer cette pénalité avec l’introduction du compteur à prépaiement ne serait pas un bon signal envoyé à nos petits consommateurs domestiques, et que ceux-ci n’ont qu’à mettre de l’argent de coté pour ne pas être coupés.

Ces affirmations sont méprisantes pour nos petits consommateurs à faibles revenus, et traduisent de la part du régulateur une méconnaissance totale des conditions de vie de ces clients, et de leur rapport à l’électricité. (§J-2.11 -1 rappel dans les faits, combien nos petits clients subissent des coupures pour non paiement avec des compteurs conventionnels)

H - 2.9 Prepayment customer target group

1 – Target Group.
UNELCO a ciblé ses clients petits consommateurs domestiques (PCD) car la plupart des demandes que nous avons reçues proviennent de cette catégorie de clients à faibles revenus.

UNELCO a ciblé ce groupe de consommateurs parce qu’il pense que ces petits clients à revenus faibles et irréguliers sont ceux qui retireront le plus d’avantage de l’utilisation du compteur à prépaiement. Ces clients sont ceux qui ont le plus de difficultés à s’acquitter de leurs dettes et qui donc restent parfois des mois sans pouvoir bénéficier de nouveau de l’électricité parce qu’ils ne sont pas en mesure de payer leurs consommations antérieures (qu’ils n’ont pas pilotées) et les frais de remise en service.

UNELCO confirme par ailleurs que les compteurs à prépaiement proposés peuvent prendre en compte les autres catégories de tarifs comme ceux avec prime fixe, et qu’il est donc adapté à un tarif Tout Usage (TU), patenté (TUP) et Administration(ADM).

UNELCO est tout à fait favorable à proposer ce système à ses autres catégories de clients.

2 – Prepayment demand in Port Vila
Vous trouverez en Annexe I, l’ensemble des demandes de compteurs à prépaiement reçues par UNELCO :

- Lettre du Ministre de l’énergie adressée à UNELCO, datée du 8/08/2011
- Lettre de URA au Head of the Office of the Eratap Chiefs and area councils du 24/08/2011
- Lettre de ECCAC (ERATAP CHIEFS) à UNELCO du 26/08/2011
- Lettre de FAREA SILIGMOL (PANGO VILLAGE) au Ministre de l’énergie du 20/03/2011
- Lettre de FAREA SILIGMOL (PANGO VILLAGE) à UNELCO du 21/06/2011
- Demandes clients sur cahier mis à la disposition au village de PANDO : 131 demandes
Demandes clients sur cahier mis à la disposition au village de MELE: 102 demandes
Demandes client sur cahier mis à la disposition de nos clients à l’agence commerciale : 33 demandes
Demande clients sur formulaire individuel à l’agence Commerciale : 107 demandes

Soit un total de plus de 370 demandes individuelles recensées.

I - 2.10 Conditions of customer agreements.

UNELCO est d’accord avec la position de l’URA. Une police spécifique doit être propose à nos clients en prépaiement.

J - 2.11 Acess to uninterrupted supply.

1 – Risk of disruption
Il ne nous est techniquement pas possible pour le moment de quantifier le nombre de coupures pour impayés que subissent nos clients prépaiement de Mélémaat. (Une demande de développement est en cours auprès de notre fournisseur STAR pour disposer de cette information).

On peut supposer, bien que UNELCO ait pris des dispositions particulières pour que le client prépaiement ne soit pas coupé le weekend et dispose d’un crédit supplémentaire de 300 VUV en cas de crédit épuisé, que le risque pour notre client prépaiement de se retrouver sans électricité, si il ne gère pas sa consommation, puisse être plus grand qu’avec un compteur conventionnel.

Cependant, à l’inverse, le risque de rester plus longtemps sans électricité par faute de pouvoir s’acquitter de ses dettes et des frais de remise en service est bien plus important avec un compteur conventionnel.

A titre d’exemple nous avons pu recenser que sur la période janvier 2011 à mars 2012, plus de 620 de nos clients PCD équipés de compteurs conventionnels ont été coupés au moins 4 fois pour impayés. Ils se sont donc acquittés de plus de 6 000 VUV de frais de coupures.
En sur l’année 2011, 253 clients PCD sont restés sans électricité plus de 20 jours, et 21 d’entre eux ont été coupés plus de 2 fois 20 jours.

Pour cette catégorie de clients aux revenus faibles et irréguliers la facturation conventionnelle (postpaid) n’est donc pas un gage de continuité d’alimentation comme le prétend le Régulateur dans son rapport.

2 – Resell point Mélémaat.
Depuis la mise en service du point de revente à Méméaat environ 60 % des recharges sont effectuées au point de revente du village de Mélé.
Le montant moyen d’une recharge se situe au alentours de 860 VUV en 2011

3- Actual data for 2011

<table>
<thead>
<tr>
<th>Periode</th>
<th>Nb of customers</th>
<th>Total refill</th>
<th>Refill in Mélé</th>
<th>% refill Mélé</th>
<th>Average refill (VUV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>janv-11</td>
<td>103</td>
<td>187</td>
<td></td>
<td></td>
<td>927</td>
</tr>
<tr>
<td>févr-11</td>
<td>105</td>
<td>181</td>
<td></td>
<td></td>
<td>956</td>
</tr>
<tr>
<td>mars-11</td>
<td>106</td>
<td>231</td>
<td></td>
<td></td>
<td>842</td>
</tr>
<tr>
<td>avr-11</td>
<td>106</td>
<td>249</td>
<td></td>
<td></td>
<td>886</td>
</tr>
<tr>
<td>mai-11</td>
<td>106</td>
<td>249</td>
<td></td>
<td></td>
<td>882</td>
</tr>
<tr>
<td>juin-11</td>
<td>106</td>
<td>239</td>
<td></td>
<td></td>
<td>904</td>
</tr>
<tr>
<td>juil-11</td>
<td>105</td>
<td>228</td>
<td></td>
<td></td>
<td>913</td>
</tr>
<tr>
<td>août-11</td>
<td>105</td>
<td>233</td>
<td></td>
<td></td>
<td>905</td>
</tr>
<tr>
<td>sept-11</td>
<td>105</td>
<td>234</td>
<td>9</td>
<td>3,8%</td>
<td>853</td>
</tr>
<tr>
<td>oct-11</td>
<td>107</td>
<td>232</td>
<td>37</td>
<td>15,9%</td>
<td>767</td>
</tr>
<tr>
<td>nov-11</td>
<td>107</td>
<td>242</td>
<td>120</td>
<td>49,6%</td>
<td>761</td>
</tr>
<tr>
<td>déc-11</td>
<td>109</td>
<td>260</td>
<td>169</td>
<td>60,4%</td>
<td>794</td>
</tr>
<tr>
<td>janv-12</td>
<td>111</td>
<td>268</td>
<td>160</td>
<td>59,7%</td>
<td>725</td>
</tr>
<tr>
<td>févr-12</td>
<td>110</td>
<td>242</td>
<td>150</td>
<td>62,0%</td>
<td>734</td>
</tr>
<tr>
<td>mars-12</td>
<td>111</td>
<td>264</td>
<td>156</td>
<td>59,1%</td>
<td>691</td>
</tr>
</tbody>
</table>
H - 2.12 Meter data display and collection

1 - Information available in meter and selected information on display:
L’ensemble des informations disponibles à partir du compteur est listés en Annexe 2.
Les informations disponibles à nos clients en face avant sur le menu déroulant ont été fournies à l’URA le 28/02/2011. Ci-joint une actualisation de ces informations.
UNELCO peut, à la demande du régulateur, ajouter ou supprimer des informations accessibles en face avant du compteur, si celui-ci les estime pertinentes pour nos clients.

2 – Communication à nos clients de Mélémaat :
Durant la mise en œuvre du projet de Mélémaat, UNELCO a conduit 2 meetings publics avec la population de Mélémaat pour expliquer le fonctionnement du compteur à prépaiement.
Durant les travaux de mise en place des compteurs à prépaiement, une équipe dédiée du service commercial a expliqué et assisté chacun de nos clients à la compréhension du fonctionnement du compteur. Une brochure explicative en bislama a été remise à chacun de nos clients.

3 – Retour client durant la période pilote :
L’enquête effectuée par UNELCO auprès de ses clients confirme leur niveau de satisfaction :

% YES | % NO
---|---
1. Are you satisfied with your prepaid meter? | 82,11% | 17,89%
4. Is your prepaid meter easy to use? | 92,63% | 7,37%
5. Do you control your power usage better? | 91,58% | 8,42%
6. Does your prepaid meter give you better value? | 90,43% | 9,57%
8. Do you have problem loading your prepaid meter? | 23,16% | 76,84%
3. Have you encountered any problem(s) with your prepaid meter? | 22,58% | 77,42%

2.13 Management of electricity Consumption

L’objectif du compteur à prépaiement n’est pas de faire baisser la consommation des clients, mais il s’agit d’un constat général que nous avons pu faire.

Sur la base des remarques faites par le régulateur sur le panel de clients à prendre en référence, l’évolution des consommations des clients de Melemaat s’établit comme suit :

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Janvier</td>
<td>5 209</td>
<td>5 282</td>
<td>4 944</td>
<td>3 907</td>
<td>4 593</td>
</tr>
<tr>
<td>Février</td>
<td>3 639</td>
<td>4 235</td>
<td>4 741</td>
<td>3 841</td>
<td>4 081</td>
</tr>
<tr>
<td>Mars</td>
<td>4 160</td>
<td>4 762</td>
<td>4 069</td>
<td>4 243</td>
<td>4 431</td>
</tr>
<tr>
<td>Avril</td>
<td>3 858</td>
<td>3 891</td>
<td>3 784</td>
<td>4 302</td>
<td>4 418</td>
</tr>
<tr>
<td>Mai</td>
<td>3 932</td>
<td>4 241</td>
<td>4 456</td>
<td>4 240</td>
<td>4 720</td>
</tr>
<tr>
<td>Juin</td>
<td>4 108</td>
<td>4 400</td>
<td>5 425</td>
<td>4 568</td>
<td>4 177</td>
</tr>
<tr>
<td>Juillet</td>
<td>4 560</td>
<td>4 635</td>
<td>4 133</td>
<td>4 259</td>
<td>4 456</td>
</tr>
<tr>
<td>Août</td>
<td>4 727</td>
<td>5 269</td>
<td>5 186</td>
<td>4 190</td>
<td>4 186</td>
</tr>
<tr>
<td>Septembre</td>
<td>4 804</td>
<td>3 649</td>
<td>4 619</td>
<td>4 070</td>
<td>4 043</td>
</tr>
<tr>
<td>Octobre</td>
<td>4 422</td>
<td>5 045</td>
<td>4 541</td>
<td>4 223</td>
<td>4 145</td>
</tr>
<tr>
<td>Novembre</td>
<td>3 915</td>
<td>4 123</td>
<td>2 874</td>
<td>3 943</td>
<td>4 158</td>
</tr>
<tr>
<td>Décembre</td>
<td>3 666</td>
<td>3 038</td>
<td>3 566</td>
<td>4 543</td>
<td>4 287</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>51 000</strong></td>
<td><strong>52 570</strong></td>
<td><strong>52 338</strong></td>
<td><strong>50 331</strong></td>
<td><strong>51 696</strong></td>
</tr>
</tbody>
</table>

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3,08%</td>
<td>-0,44%</td>
<td>-3,84%</td>
<td>2,71%</td>
<td></td>
</tr>
</tbody>
</table>

Il est à noter que l’évolution des consommations du village de Méle a toujours été par le passé positive, et que nous constatons une stagnation depuis 2009, la consommation enregistrée en 2011 (51 696 kWh) n’ayant toujours pas rattrapée celle attente en 2008 (52 570 kWh) avec des compteurs conventionnels. Stagnation à mettre en relief avec une baisse significative de plus de 40 % du prix de l’énergie pour ces petits clients depuis Juillet 2010.
Des études effectuées par ailleurs confirment aussi que :

“Salt River Project (SRP), who has the largest prepay metering program in the United States, reports that their customers are, on average, reducing their annual electricity usage by 12.8%. While reduced sales may not be viewed as a benefit, the lower consumption can be translated into a lower risk exposure for those who want to better manage their budget. Also, 95% of the prepay customers report they have more control over the electricity they consume”.

KEMA (DNV KEMA Energy & Sustainability is a global, leading authority in business and & technical consultancy, testing, inspections & certification, risk management, and verification, along the energy value-chain) paper about its USA experience

2 – Comparaison avec d’autres villages.
URA suggère de comparer les consommations des clients PCD de Mélémaat équipés de compteurs à prépaiement avec les consommations de clients d’autres villages durant la même période.
Ci-joint les résultats obtenus en comparaison avec les villages de Mélé et d’Erakor. Ils montrent une moyenne des consommations par client PCD supérieurs respectivement de 24% et 12% par rapport à Mélémaat.

<table>
<thead>
<tr>
<th></th>
<th>Average annual consumption (kWh)</th>
<th>%/mmaat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mélémaat</td>
<td>673 / 579 / 1252</td>
<td></td>
</tr>
<tr>
<td>Mélé</td>
<td>797 / 761 / 1558 / 24,4%</td>
<td></td>
</tr>
<tr>
<td>Erakor</td>
<td>724 / 679 / 1403 / 12,1%</td>
<td></td>
</tr>
</tbody>
</table>

2.14 Safety and reliability.

1 - reliability
Environ 100 compteurs ont été installés à Melemaat.
Depuis Janvier 2010, 2 compteurs défectueux ont été remplacés. Ce qui est conforme avec les taux de défectuosité rencontrés pour des compteurs classiques électromécaniques.

2 – Références du fournisseur.
Vous trouverez en annexe 2 la brochure commerciale de notre fournisseur de compteur prépaiement.
Notre chef de projet s’est rendu à 2 reprises en Chine pour apprécier le sérieux et le professionnalisme du fournisseur.
Star fabrique 5 millions de compteurs dont 1 millions en prépaiement par an. La plupart des compteurs à prépaiement sont exportés en Amérique du Sud, mais aussi actuellement en Indonésie où il y a de plus en plus de demande pour le prépaiement.
Leur principal concurrent, d’après eux, est Conlog (Afrique du Sud) qui a un vaste marché Africain. De ce fait Star oriente vers l’Amérique et l’Asie son marché de prédilection. Donc a priori, ces deux fabricants font partis des principaux fournisseurs de compteurs à prépaiement dans le monde.

3- Safety issues.
Comme mentionné dans notre soumission du 25 Janvier 2011 à l’URA, une des causes principale d’accident de travail dans nos métiers est liée à la relève des compteurs.
Soit par accident de trajet lors des tournées de relève, soit par attaque de chiens.
Vous trouverez par ailleurs ci-joint statistiques d’accidents de travail enregistrées à Electricité et Eau de Calédonie (EEC) et Electricité de Tahiti (EDT) concernant les agents releveurs :

**EEC :**
- 2005 : 1 accident - 7 jrs d'arrêts
- 2006 : 1 accident - 6 jrs d'arrêts.
- 2007: 1 accident - 1 jr d'arrêt
- 2010: 1 accident - 6 jrs d'arrêts
- 2011: 1 accident - 0 jrs d'arrêt.

**EDT :**
- 2012: 1 accident – 0 jrs d’arret.

### 2.15 Customers responses to the trial

UNELCO a effectué son enquête d’opinion en Juillet 2010.
L’URA encore une fois émet des doutes et conteste ce qui a été fait et les avis donnés par nos clients.

Cette enquête a été remise au régulateur en septembre 2010. Si celui-ci considérait que le sondage effectué par UNELCO n’était pas valable, il aurait pu effectuer sa propre enquête. Rien n’a été entrepris jusqu’en Mars 2012.

Plus grave c’est après avoir fourni son avis dans le cadre de son ‘positin paper’ que l’URA suggère désormais de mener des enquêtes.

Sur quelles bases a-t-il donc rédigé son « position paper » pour présager de l’avis de nos clients ?
UNELCO RESPONSE TO

UTILITIES REGULATORY AUTHORITY POSITION PAPER ON PREPAID METER

April 2012

A – The Authority’s powers.

UNELCO signed a Concession Contract with the Government of Vanuatu (Government) on 15 August 1986 to supply electricity in Port Vila.

This contract provides in its Article 11(57) – Meters – that “Appartus for measuring and controlling energy and power shall be of one of those approved by the competent Authority of VANUATU”. This contract which is inspired by French Law (which is applicable in Vanuatu by virtue of Article 93(2) of the Constitution of Vanuatu – French version – or Article 95 (2) of the Constitution of Vanuatu – English version – ) refers in fact to a particular Government Department. The competent Authority which this contract refers to is the Services des Mines in France or the National Measurement Office in Australia which is competent to ensure that the measuring apparatus counts energy accurately and with sufficient standardised detailed data.

The power provided by Article 11(57) of the contract was transferred by the Government to the Utilities Regulatory Authority (the “URA”, the “Authority” or the “Regulator”) in 2007 in accordance with the Utilities Regulatory Authority Act n°11 of 2007 as amended (the “URA Act” or the “Act”).

The URA’s position is sought with respect to that Article so that the Authority may confirm if the prepaid metering system proposed by the Concessionaire counts the KWh (energy) with sufficient details and in accordance with the current tariff structure as awarded by the International Arbitration Panel on the tariff review in Melbourne on 28 April 2011.

The URA’s position on matters such as the convenience of the system for ALL Vanuatu, ability of the customer to manage the meter, risk of disruption, cost savings, privacy of data etc.. is out of the scope of its powers and is therefore irrelevant.

Whereas this confirmation does not clearly appear in the report of 92 pages published by the Authority, the URA confirmed during a public conference held in Mele on 11 April 2012, that the proposed prepaid metering system counts the KWh consumed by our customers on similar basis as the conventional metering system. Below is the slide that was shown during that public meeting:
Further UNELCO is requesting approval to use prepayment meter only within Port Vila Electricity Concession.

The assessment criteria which would apply to ALL Vanuatu should not be considered by the Regulator to grant its approval. The URA’s intention to evaluate the prepayment metering system «To the advantage of all the electricity customers in Vanuatu» (as stated by the URA’s Chairperson on 3 April 2012) should not be considered.

B – 2.3 – Evaluation of existing prepayment tariff in Malekula and Tanna.

This section is irrelevant to the purpose of this paper as the approval sought by UNELCO from the Authority is to use a particular type of prepayment meter within Port Vila Electricity Concession. The Authority refers to another type of prepayment meter (Libergy) installed since 2001 in our concessions of Tanna and Malekula.

But we cannot remain silent about the allegations and wrong information contained in this section (2.3) of the Authority’s position paper.

Tanna and Malekula prepayment metering system (Libergy) was introduced during the setting up of those 2 rural Concessions in 2001. In order to reduce the cost of operation of these 2 rural concessions and in agreement with the Government (the Grantor), it was decided to use a prepayment metering system in those 2 concessions.

A specific flat tariff was introduced to comply with the limited technical options of the prepayment metering system at that time (that metering system can only manage a flat tariff). The tariff was agreed by the then Minister of Energy by letter dated 29 June 2001 with the prior endorsement of the Council of Ministers in its Decision of 21 June 2001. This tariff is still part of the current monthly tariff chart provided and verified by the URA.

During the tariffs review with the URA and for the purpose of the determination of the “required revenues” from sales for the next 5 years (2010 to 2015), this specific tariff was included in the financial model, and it was part of the review. The URA has never proposed in our meetings or in its position paper or final decision to amend or repeal this tariff for Tanna and Malekula concessions during that recent tariff review.

The URA’s Final Decision of May 2010 refers to this tariff, with a propose decrease of 6.8 % (on page 6 of the URA’s Final Decision May 2010 as attached below). The Authority has not proposed to review this specific tariff in its Final Decision of May 2010.
How can URA state that they [‘discover a great concern’] – “Moreover, and this is a very grave discovery that trouble the Authority, Malekula and Tanna prepayment customers […] have been paying up to three times …” concerning tariffs for Tanna and Malekula when this tariff was approved by the URA in its Final Decision …

The difference of price is only related to the difference in the tariff structure between the agreed price of electricity for the concession of Tanna and Malekula and Port Vila. This has nothing to do with the type of meter used (whether pre or post paid meter).

It is technically possible with the proposed prepaid meter (STAR) to comply with the special step tariff which applies for our low income customers. It will enable the customers in Tanna and Malekula to have access to the same Small Domestic Customer (SDC) tariff as the customers of Port Vila.

Asserting that UNELCO is overcharging its customers in Tanna and Malekula who are using prepayment meters compared to customers in Port-Vila, only because our customers in Tanna and Malekula are using prepaid metering systems is manipulating our customers.

Since November 2012, all our customers in Malekula are using STAR prepayment meters and benefits from the same tariff as the customers in the Port Vila.

By the end of 2012, all our customers in Tanna will switch to the new prepayment system (STAR) and will have access to the SDC tariff.

Claiming that UNELCO is overcharging its customers in Tanna and Malekula is not only misleading the public and our customers but is also false information.

C – 2.4 – Ongoing evaluation of existing tariff.

Once again this chapter is irrelevant to the purpose of this paper which is to respond to a request of approval of a type of meter.

The gratuitous assertion, already hinted several times by the URA, that the origin of customer dissatisfaction in Luganville (not to mention a riot in front Vanuatu Utilities and Infrastructure Ltd’s – VUI- office), at the takeover of operation by VUI in early 2011, was due to improper categorization of customers by UNELCO, is a baseless assertion which is not supported with any evidence at all.
UNELCO has implemented the same tariff structure than VUI did, from May 2012 for its Port Vila, Tanna and Malekula customers and this was successfully implemented without any complaint at all from our customers.

UNELCO managed this change of tariffs with appropriate communication, carefully case by case study of the situation of each of its customer affected by the change of tariff structure.

It appears that VUI has not preceded similarly for the Luganville customers. In contrary, each of Luganville customers was informed individually in their first invoices as follows: “Tankio tumas for the opportunity to serve the people of Espiritu Santo. Vanuatu Espiritu Santo KHW price is 6.8 % less than Efate”.

We may understand the dissatisfaction of the Luganville customers who have found out that their price of electricity was not decreased as advertised by VUI.

Since the alleged irregularities, the URA broke the tariffs structure in Luganville and imposed a 4 step progressive and then digressive tariffs for all Luganville customers.

These changes are not only in contradiction with the URA’s Final Decision for Luganville tariffs setting “URA Luganville Electricity Tariff Setting Final determination (stage 1) 23 August 2010” but above all, this is in contradiction with the Government’s uniform tariff policy across all Concessions (See extract from the URA’s document below).

As part of the Governments uniform tariff policy and in line with their desire to reduce the electricity costs of low end customers, the URA will apply the same tariff structure for Luganville as applied in the all concessions final decision as shown below.

As described in section 9 the Tariff Equalisation Mechanism is used to determine $P_c$.

### 10.2 Draft Determination

<table>
<thead>
<tr>
<th>Customer group</th>
<th>Price per kWh</th>
<th>Monthly fixed charge</th>
<th>Security deposit</th>
</tr>
</thead>
</table>
| Small Domestic Customers        | Up to 60 kWh = 0.34 x P  
61 to 120 kWh = 1.21 x P  
Over 120 kWh = 3.00 x P | None                 | 70 x P |
| Other Low Voltage Customers     | 1.21 x P            | 5 x P per subscribed kVA | 150 x P per subscribed kVA |
| Business Licence Holders – Low Voltage | 0.87 x P    | 20 x P per subscribed kVA | 150 x P per subscribed kVA |
| Sports Fields                   | 1.00 x P            | None                 | None |
| Public Lighting                 | 0.54 x P            | None                 | None |
| High Voltage Users              | 0.70 x P            | 25 x P per subscribed kVA | 150 x P per subscribed kVA |

It is obvious that the risk for a Luganville customer of not being placed within the best appropriate customer category according to its patterns of consumption does no longer exist since a customer has no longer the choice of its customer category.

What is more serious is that the special dedicated tariff for low income customers, which is a positive income of the tariff review and which reflects the political wish of the Government, has been removed.

So whether you are a grass root customer, a licensee or an expatriate, you will all have to pay the first 60 kWh at the same preferential tariff.
**D – 2.5 – Tranche tariff under prepayment scheme.**

A comment made by one of our customers in Mele Maat which was used by the Regulator and highlighted in its position paper was that the customers “felt they were paying more than before”. But only a small number of people who were interviewed have a similar view. The majority of our customers who were interviewed by us do not share this view. It is important to note that in reality, the proposed meter bills the customer according to the tariffs structure. This point was endorsed by the URA. (Please refer to 1st § A).

The Regulator is concerned that our customers will be credited with less KWh when they refill at the end of the month rather than in the beginning of the month: « running an appliance in the beginning of the month cost about 70 % less than at the end of the month ».

The third tranche of the progressive and dissuasive Small Domestic Customer tariff has been put in place to prevent (or limit) a customer from consuming energy above 120 KWh per month. With the prepayment metering system, a customer whose consumption is within the third tranche at the end of the month, will pay a higher bill than in the beginning of the month where the first tranche is applied. When the customer refills, the display of the meter indicates the tranche of that customer (before that customer effects payment by inserting his refilled card into the prepayment metering system). Therefore the customer can better manage his consumption with the highest tranche.

Moreover, the risk of a disconnection is faster than at the beginning of the month. So the customer will be less invoiced within the third tranche which is an incentive for that customer to better manage his consumption.

On the contrary, a customer using a conventional meter and who consumes more than 120 KWh will be heavily penalised when that customer is billed. Most importantly, this customer will definitely lose the benefit of the social tariff when his energy consumption exceeds the authorised tranche for the third time.

But it is possible to alter the meter’s software so as to polish the “validity” period of the credit with respect to payment based on that customer’s monthly average consumption and regardless of when the customer pays. We do not think that this is helpful for our customers but these terms can be defined with the Authority if they wish to do so.

**E – 2.6 – Tariff fluctuation risk.**

With its proposed STAR prepayment meter, UNELCO can adjust the energy billing of its customers to the double constrains of progressive monthly KWh price and the monthly adjustment of the base price. These constrains are dictated by the tariff, the tariff structure and the tariff adjustment formula as confirmed in the tariff review.

The financial impact of the monthly adjustment of the base price “P” tariff is totally insignificant and the effects of this adjustment on the electricity bill of a Small Domestic Consumer customer are also insignificant. This adjustment will be costless.
Apart from a tariff review (which occurs every five years less than), less than 2.2 Vatu between April and May 2012 and the subsequent changes of custom duties on gasoil since January 2010, the highest base “P” price adjustment recorded has never exceeded 2.08 Vatu on a month to month basis (from May to June 2011).

This adjustment represents 73 KWh per month for an average bill of a Small Domestic Consumer and costs only 80 Vatu (on an invoice of 1 988 Vatu) if the customer does not refill during a month (Our customers do refill 2.7 times per month).

To base their argument on that phenomenon to pretend that this prevents the customers to appropriately manage their budgets is misleading.

But if the Authority disagrees with the a posteriori adjustment, it is possible to remove this option from the software. The adjustment would then be made each month, but the customer will pay the tariff applied on the date of payment. This will simplify the prepayment meter software but the amendments would deviate from the terms of contract.

F – 2.7 – Affordable connection and Tariffs

1 – Upfront cost.

In 2011 and based on our last order of 400 meters, the full cost of a meter box excluding our stock but including external box, upstream fuse and breaker is 7 255 Vatu tax included for a prepaid meter box and 13 910 Vatu tax included for a conventional meter box.

Based on the average cost of a simple service connection (which is a connection from the connection terminal with the meter situated near the electrical pole), the cost of a service connection of a prepaid meter will be 44 854 Vatu and the cost of a service connection of a conventional meter will be 39 199 Vatu tax included, which is 14% less expensive.

As provided in Article 13(66) of our Concession Contract, Small Domestic Customers are to pay an advance of consumption of 70xP = 3 851 Vatu (based on tariffs of March 2012). This advance of consumption is calculated so as to cover the cost of energy consumed between two meter readings: that is 30 days (but not 45 days as claimed by the URA in its report). Customers using a conventional meter must pay this advance prior to any supply of energy.

However, a customer using a prepayment meter may have immediate access to energy for only 100 Vatu. Based on the average monthly consumption of a Small Domestic Customer of Port Vila recorded at 73 KWh, that is a refill of 2 236 Vatu tax included, (base price of March 2012), the URA spread sheet on page 28 of its position paper is thus modified as follows:

<table>
<thead>
<tr>
<th>In vatu</th>
<th>Postpaid</th>
<th>prepaid</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical connection cost</td>
<td>30 944</td>
<td>30 944</td>
<td></td>
</tr>
<tr>
<td>Meter box</td>
<td>13 910</td>
<td>7 255</td>
<td></td>
</tr>
<tr>
<td>Deposit for a month consumption</td>
<td>3 851</td>
<td>2 236</td>
<td>-17 %</td>
</tr>
<tr>
<td>New connection cost</td>
<td>48 704</td>
<td>40 435</td>
<td></td>
</tr>
</tbody>
</table>

This is a saving of 17% and not 1.92% as calculated by the Regulator. The difference generates an initial access cost of more than 20% if for example; the customer decides to refill for 500 Vatu.
2 – Customer satisfaction.

The URA asserts that the only reason for which Mele Maat customers have expressed their satisfaction for using prepaid meters and recommending that metering system is the reduction of their electricity bills which is a direct result of the decrease of tariff implemented at that time when UNELCO was conducting its survey.

But UNELCO has unilaterally applied a decrease of 40 % of the first tranche of its Small Domestic Consumers tariff from 1 July 2010, prior to the outcome of the tariff review. The survey was conducted between 3 and 9 July 2010, that is before our customers can experience any decrease of their electricity bills. The satisfaction of our customers was solely based on their appreciation of the prepaid meter before any decrease of tariffs.

UNELCO considers the assertions made by the URA as untrue, baseless and false.

3 – Misleading and deceptive information.

UNELCO regrets that there is no provision under the URA Act which protects the utilities from misleading and deceptive information published by the Regulatory Authority.

G – 2.8 – Costs versus benefits and impact on future tariffs

1 – Cost versus Benefit.

The required investment to build a resale point is 194 500 Vatu. The monthly operation cost of a resale point is 20 000 Vatu per month.

In 2011, UNELCO has effected more than 18 000 disconnections and reconnections with a cost of 12 870 912 Vatu which was borne by the customers.

During a period of 10 days each month, 6 meter readers, equipped with a vehicle and portable electronic meter reading devices, criss-cross Port Vila city to read more than 10 000 electronic meters. This service represents an equivalent of 500 hours per person per month. Each month, UNELCO spends around 400 000 Vatu for postage costs of electricity bills to its customers.

Alleging that prepayment meter system might lead to an increase of the Concessionaire’s operation costs is pure bad faith and sad.

2 – Benefit of non payment penalty.

On page 31 at the last paragraph of its position paper, the Authority considers that the non payment penalty is required for the non-paying customers and that the non-payment constitutes an offence and that our small domestic customers just have to arrange a saving that they can tap into to ensure prompt payment and thus prevent them from being disconnected.

These assertions are disrespectful to our low income customers and show that the Authority totally ignores the living conditions of those customers and their usage of electricity. (§ J-2.11-
1 refers to the amount service disconnections for unpaid bills of our low income customers using conventional meters).

**H – 2.9 Prepayment customer target group**

1 – Target Group.

UNELCO has targeted its Small Domestic Customers because most of the requests for prepaid meters were received from this customer target group.

UNELCO has also targeted this customer group because we consider that those low income customers will take the most benefits out of the prepayment metering system.

These customers are also those who have most difficulties in clearing their debts, and thus may remain disconnected for months because they cannot afford the cost of their previous mismanaged consumption plus disconnection and reconnection fees.

UNELCO also confirms that the proposed prepayment metering system offers the possibility to manage other tariffs structures such as fixed charge tariffs and is thus suitable for All Purposes customers’ category and also the Licensed and Corporate customers’ category.

UNELCO is totally favorable to offer prepaid meters to those other customers as well.

2 – Prepayment demand in Port Vila.

Please find attached requests for prepaid meters received by UNELCO:

- Letter from Minister of Energy to UNELCO, dated 8 August 2011
- Letter from Minister of Energy to URA, dated 23 November 2011
- Letter from URA to the Head Office of the Eratap Chiefs and Area Councils, dated 24 August 2011
- Letter from ECCAC (Eratap Chiefs) to UNELCO, dated 26 August 2011
- Letter from FAREA SILIGMOL (Pango Chiefs) to Minister of Energy, dated 20 March 2011
- Letter from FAREA SILIGMOL (Pango Chiefs) to UNELCO, dated 21 June 2011
- Customers requests on book made available to customers in Pango: a total of 131 requests
- Customers requests on book made available in Mele village: 102 requests
- Customers requests on book made available to our customers in UNELCO’s customers service: 33 requests
- Customers Individual Requests through our customers service: 107 requests.

Therefore, there are a total of 370 individual requests recorded.

I – 2.10 – Conditions of customer agreements.

UNELCO agrees with the URA’s position that a specific customer agreement should be put in place.
J – 2.11 – Access to uninterrupted supply.

1 – Risk of disruption.

We are unable to technically quantify the number of service disconnections for unpaid bills faced by our customers who are using prepayment meters at Mele Maat village. (We have requested the supplier of STAR prepayment meters to upgrade their software so that this type of information is available to us).

UNELCO has made special arrangements so that a customer using a prepayment meter is not disconnected on the weekends and has an additional credit of 300 Vatu if the customer runs out of credit. But the risk that this customer is disconnected if he does not properly manage his consumption may be greater than with a conventional meter.

But on the contrary, the risk of staying without this essential service for a longer period of time (waiting for having sufficient funds to pay its previous uncontrolled debt and reconnection fee) is much higher for a customer using a conventional meter. With the prepayment meter, our customers have access to energy, if needed, for only 300 Vatu. But with the conventional meters, our customers remain disconnected until complete payment of their debts.

For example, we have recorded that more than 620 Small Domestic Consumers who are using conventional meters have been disconnected at least four times for unpaid bills between January 2011 and March 2012. Therefore they have had to pay a reconnection fee of more than 6 000 Vatu. In 2011, 253 Small Domestic Consumers have been left without electricity for more than 20 days and 21 of those customers have been disconnected twice for 20 days.

Therefore the conventional billing (post-paid) is not a guarantee of uninterrupted supply for this category of those low and irregular income customers as alleged by the Authority in its position paper.

2 – Resale Point of Mele Maat.

Since the Resale Point of Mele Maat has operated, 60% of the refill is made at the Resale Point of Mele Village. The refill cost is about 860 Vatu in 2011.
### 3- Current data for 2011

<table>
<thead>
<tr>
<th>Période</th>
<th>Nb of customers</th>
<th>Total refill</th>
<th>Refill in Mélé</th>
<th>% refil Mélé</th>
<th>Average refill VUV</th>
</tr>
</thead>
<tbody>
<tr>
<td>janv-11</td>
<td>103</td>
<td>187</td>
<td></td>
<td></td>
<td>927</td>
</tr>
<tr>
<td>févr-11</td>
<td>105</td>
<td>181</td>
<td></td>
<td></td>
<td>956</td>
</tr>
<tr>
<td>mars-11</td>
<td>106</td>
<td>231</td>
<td></td>
<td></td>
<td>842</td>
</tr>
<tr>
<td>avr-11</td>
<td>106</td>
<td>249</td>
<td></td>
<td></td>
<td>886</td>
</tr>
<tr>
<td>mai-11</td>
<td>106</td>
<td>249</td>
<td></td>
<td></td>
<td>852</td>
</tr>
<tr>
<td>juin-11</td>
<td>106</td>
<td>239</td>
<td></td>
<td></td>
<td>904</td>
</tr>
<tr>
<td>juil-11</td>
<td>105</td>
<td>228</td>
<td></td>
<td></td>
<td>913</td>
</tr>
<tr>
<td>août-11</td>
<td>105</td>
<td>233</td>
<td></td>
<td></td>
<td>905</td>
</tr>
<tr>
<td>sept-11</td>
<td>105</td>
<td>234</td>
<td>9</td>
<td>3,8%</td>
<td>853</td>
</tr>
<tr>
<td>oct-11</td>
<td>107</td>
<td>232</td>
<td>37</td>
<td>15,9%</td>
<td>767</td>
</tr>
<tr>
<td>nov-11</td>
<td>107</td>
<td>242</td>
<td>120</td>
<td>49,6%</td>
<td>761</td>
</tr>
<tr>
<td>déc-11</td>
<td>109</td>
<td>280</td>
<td>169</td>
<td>60,4%</td>
<td>794</td>
</tr>
<tr>
<td>janv-12</td>
<td>111</td>
<td>268</td>
<td>160</td>
<td>59,7%</td>
<td>725</td>
</tr>
<tr>
<td>févr-12</td>
<td>110</td>
<td>242</td>
<td>150</td>
<td>62,0%</td>
<td>734</td>
</tr>
<tr>
<td>mars-12</td>
<td>111</td>
<td>264</td>
<td>156</td>
<td>59,1%</td>
<td>691</td>
</tr>
</tbody>
</table>

#### K – 2.12 – Meter data display and collection

1 - *Information available in meter and selected information on display.*

All information available on the meter is listed in Schedule 2.
The information on display on the face of the meter (on the Menu Option) has been provided to the Authority on 28 February 2011. Attached is an update of this information.

UNELCO may, at the request of the Authority, add or delete some information displayed on the face of the meter, if the Authority considers it necessary for our customers.

2 – Communication to our customers in Mele Maat.

During the Mele Maat pilot project, UNELCO has organised two public meetings with the population of Mele Maat village to explain how to use a prepayment meter.

A dedicated team within our customer service was on site during the changeover of each meter to explain and assist each of our customers to understand the features of the prepaid metering system. An explanatory brochure in Bislama was also provided to each customer.

3 – Customers’ feedback during trial period.

The customers’ assessment undertaken by UNELCO confirms that the customers are satisfied with the prepaid metering system as shown below:

<table>
<thead>
<tr>
<th>Question</th>
<th>% YES</th>
<th>% NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are you satisfied with your prepaid meter?</td>
<td>82.11%</td>
<td>17.89%</td>
</tr>
<tr>
<td>4. Is your prepaid meter easy to use?</td>
<td>92.63%</td>
<td>7.37%</td>
</tr>
<tr>
<td>5. Do you control your power usage better?</td>
<td>91.58%</td>
<td>8.42%</td>
</tr>
<tr>
<td>6. Does your prepaid meter give you better value?</td>
<td>90.43%</td>
<td>9.57%</td>
</tr>
<tr>
<td>8. Do you have problem loading your prepaid meter?</td>
<td>23.16%</td>
<td>76.84%</td>
</tr>
<tr>
<td>3. Have you encountered any problem(s) with your prepaid meter?</td>
<td>22.58%</td>
<td>77.42%</td>
</tr>
</tbody>
</table>
L – 2.13 – Management of electricity consumption.

1 – Mele Maat Pilot project.

The purpose of a prepaid meter is not to reduce a customer’s consumption or usage of energy. This is a general observation that we have made.

Based on the observations made by the Authority on the customers target group, the consumer trend of energy consumption of Mele Maat is as follows:

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Janvier</td>
<td>5 209</td>
<td>5 282</td>
<td>4 944</td>
<td>3 907</td>
<td>4 593</td>
</tr>
<tr>
<td>Février</td>
<td>3 639</td>
<td>4 235</td>
<td>4 741</td>
<td>3 841</td>
<td>4 081</td>
</tr>
<tr>
<td>Mars</td>
<td>4 160</td>
<td>4 762</td>
<td>4 069</td>
<td>4 243</td>
<td>4 431</td>
</tr>
<tr>
<td>Avril</td>
<td>3 858</td>
<td>3 891</td>
<td>3 784</td>
<td>4 302</td>
<td>4 418</td>
</tr>
<tr>
<td>Mai</td>
<td>3 932</td>
<td>4 241</td>
<td>4 456</td>
<td>4 240</td>
<td>4 720</td>
</tr>
<tr>
<td>Juin</td>
<td>4 108</td>
<td>4 400</td>
<td>5 425</td>
<td>4 568</td>
<td>4 177</td>
</tr>
<tr>
<td>Juillet</td>
<td>4 560</td>
<td>4 635</td>
<td>4 133</td>
<td>4 259</td>
<td>4 456</td>
</tr>
<tr>
<td>Août</td>
<td>4 727</td>
<td>5 269</td>
<td>5 186</td>
<td>4 190</td>
<td>4 186</td>
</tr>
<tr>
<td>Septembre</td>
<td>4 804</td>
<td>3 649</td>
<td>4 619</td>
<td>4 070</td>
<td>4 043</td>
</tr>
<tr>
<td>Octobre</td>
<td>4 422</td>
<td>5 045</td>
<td>4 541</td>
<td>4 223</td>
<td>4 145</td>
</tr>
<tr>
<td>Novembre</td>
<td>3 915</td>
<td>4 123</td>
<td>2 874</td>
<td>3 943</td>
<td>4 158</td>
</tr>
<tr>
<td>Décembre</td>
<td>3 666</td>
<td>3 038</td>
<td>3 566</td>
<td>4 543</td>
<td>4 287</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>51 000</strong></td>
<td><strong>52 570</strong></td>
<td><strong>52 338</strong></td>
<td><strong>50 331</strong></td>
<td><strong>51 696</strong></td>
</tr>
</tbody>
</table>

It is to be noted that the consumer trend of energy consumption of Mele Maat village has always been positive in the past. We have also found that energy consumption has not evolved since 2009. The consumption recorded in 2011 (of 51 696 KWh) has yet to overtake the consumption of 2008 (which was 52 570 KWh) with conventional meters. This non-evolving trend is due to significant decrease of tariff of more than 40% for those low income customers since July 2010.

Some independent studies confirm that:

“Salt River Project (SRP), who has the largest prepay metering program in the United States, reports that their customers are, on average, reducing their annual electricity usage by 12.8%. While reduced sales may not be viewed as a benefit, the lower consumption can be translated into a lower risk exposure for those who want to better manage their budget. Also, 95% of the prepay customers report they have more control over the electricity they consume”.

Extract from KEMA (DNV KEMA Energy & Sustainability is a global, leading authority in business and & technical consultancy, testing, inspections & certification, risk management, and verification, along the energy value-chain) paper about its USA experience.

2 – Comparison with other villages.
The Authority has suggested to comparing electricity consumption or usage of Small Domestic Consumers of Mele Maat with the usage of customers of other villages during the same period. Below are the comparative figures of Mele and Erakor. The figures show that the average consumption of a Small Domestic Consumer is higher by respectively 24% and 12% compared to Mele Maat.

<table>
<thead>
<tr>
<th></th>
<th>Average annual consumption (kWh)</th>
<th>%/mmaat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
<td>2011</td>
</tr>
<tr>
<td>Mélémaat</td>
<td>673</td>
<td>579</td>
</tr>
<tr>
<td>Mélé</td>
<td>797</td>
<td>761</td>
</tr>
<tr>
<td>Erakor</td>
<td>724</td>
<td>679</td>
</tr>
</tbody>
</table>

\[ \text{M – 2.14 – Safety and reliability.} \]

\[ 1 – \text{Reliability.} \]

Around 100 prepayment meters have been installed in Mele Maat. Since January 2010, only 2 defective meters had to be replaced. This is conforming to the faulty rate of electronic conventional meters.

\[ 2 – \text{Supplier’s reference.} \]

You will find on Schedule 2, the customer brochure of our prepayment meter’s supplier. The Project Manager of our prepaid meter project has visited China twice to assess the professionalism of our supplier.

STAR manufactures 5 million meters per annum including 1 million prepaid meters. Many prepayment meters are exported to South America and nowadays to Indonesia where there is an increasing demand for prepayment meters.

According to the supplier, their major competitor is Conlog (South Africa) which has a large market in Africa. Therefore STAR supplies its products to South America and Asia. So those 2 manufacturers are the main suppliers of prepayment meters worldwide.

\[ 3 – \text{Safety issues.} \]

As stated in our report to the Authority dated 25 January 2011, one of the major reasons of lost-time accidents of our operation is related to meter reading whether it is road accidents during meter readings or dogs biting incidents.

The only accident recorded in 2011 was a dog biting incident which occurred during a meter reading in a village causing a 13 days medical leave from work of our employee. This information is mentioned in the 2011 Annual Report which we have provided to the Authority.
You will also find attached the data on work accidents recorded by Electricité et Eau de Calédonie (EEC) and Electricité de Tahiti (EDT) concerning meter readers:

**EEC:**
- 2005: 1 accident: 7 days medical leave
- 2006: 1 accident: 6 days medical leave
- 2007: 1 accident: 1 day medical leave
- 2009: 2 accidents: 24 days medical leave
- 2010: 1 accident: 6 days medical leave
- 2011: 1 accident: 0 day medical leave

**EDT:**
- 2009: 4 accidents: 15 days medical leave
- 2012: 1 accident: 0 day medical leave

N – 2.15 Customers responses to the trial

UNELCO did a survey in September 2010. Once again, the URA questions and challenges this assessment and the responses provided by our customers.

This survey was provided to the URA on September 2010. If the Authority considered that the assessment undertaken by UNELCO was not valid, then the Authority should have conducted its own survey. Nothing has been done until March 2012.

What is more alarming is that the URA is suggesting to undertaking its own survey only after it has published its opinion in its Position Paper. So on what basis has the URA published its Position Paper in which the Authority claims that the paper carries the opinion of our customers?
Kerry Martin, White Sands Engineering (17 April 2012)
Reading [the prepayment meter system] the report confirms my skepticism about the viability of a prepaid meter system coupled to a tiered tariff. Too complex for the average NiVanuatu to cope with I believe.

Hannington Alatoa (April 30, 2012)
RE Section 2.3.
Both the Utility and Authority continue to discuss their roles in the industry - with specific reference to the mode of providing electricity to their consumers - and the need to “regulate” such services. In the meantime, very little discussion so far has been directed towards the high cost of doing business in the country (Vanuatu).

RE Section 2.4.
When would UNELCO and the Authority start taking account of the call from the business sector and the public and civil society for reduction of “cost of doing business” in Vanuatu?

I am of the opinion that power consumers should be the common denominators whom we should consider with respect to their ability to use the services utilities and authorities provide.

It would be useful to always consider consumers as our “Kings & Queens” in whatever regard.

RE Section 2.5.
A tranche-base tariff may work well with a post payment meter system as it does now in the Port Vila Concession Area.

Due to issues outlined above, further research and consultations between UNELCO, URA and Government representing the consumers need to take place - in order to have an outcome acceptable by all.

RE Section 2.6.
Such application as part of the proposed prepayment meter system must be researched fully in order to ensure that customers are not unduly charged for power. UNELCO must be frank and transparent in all its dealings as utility service provider.

Tariff adjustments should be made based on price/cost fluctuations etc periodically - e.g. quarterly; half-quarterly, etc.

In the other hand, if UNELCO gets its fuel and other goods & services on duty-free, or concessional basis, it is unfair for all costs to be passed on to its customers. Far from that electricity consumption is a basic need and tariff adjustments should be transparent based on justification.

RE Section 2.7.
Many SDC and the 10 amp customers - especially Ni-Vans consider upfront cost of both meters to be too expensive without any justification by UNELCO. Consumers would therefore agree with the findings of the Authority. UNELCO most often misleads its clients.

RE Section 2.8.
At present the cost of electricity and water remain high. Whichever point one comes from, the operating system(s) employed by (UNELCO) will always cover its costs and make a profit. An utility provider is a commercial venture. A regulator’s role is to ensure fairness in all aspects of service.
The other benefit is the ability of a consumer to decide whether to have electricity or not at any time - therefore able to budget.

UNELCO should have provided details of cost savings, and benefits and impact of current and future tariff for prepayment customers for comparative purpose here.

RE Section 2.9.

As a stakeholder, I cannot comment on the proposed target group (LVTC) as UNELCO has yet to provide the information, data and analysis of the proposed service ot the Authority.

Until UNELCO does this, it is prudent to hold on the implementation of the prepayment meter system n all three concession areas for the target group.

RE Section 2.10.

Just to reiterate that UNELCO is obliged by law to comply with the provisions stated in the contract document in the future.

the way UNELCO reacts is not surprising - as it has been operating without a regulator over 70 years with some "ease" supported by the “political elite” - keeping the consumers mostly in the dark. Now it's a different time... everything must be transparent and as according to the law.

RE Section 2.11.

(1) Uninterrupted supply of power really depends on the ability of the consumers to manage consumption. Planning also plays a significant part toward interruptions. UNELCO can only provide customers with the tools and other indicators that provide safeguards - such as the minimum loading power fixed at 5 kWh (VT 200) to assist SDCs.

(2) Experience through duration (time) in months and years and monitoring and evaluation of how the systems work and operated will provide factual information which both the utility provider and the Authority can then provide a balanced reporting on the service and the impacts of such power supply to all the customers.

RE Section 2.12.

Such requirements must be met in time. The service provider has a responsibility to deliver.

RE Section 2.13.

Energy conservation is normally arrived at by taking the necessary measures for the same by a consumer. What forms and types of appliances, duration of applications, etc all contribute to energy conservation. It is perhaps fair to say here that the utility provider should be congratulated for starting to cooperate with key stakeholders and consumers in addressing the upcoming project (prepayment meter) in Port Vila and wider Port Vila area. Questions raised by the Authority are sure to be addressed through time.

RE Section 2.14.

I have been resident in Vila for over 40 years and during that time, i can confirm that over time meter readers became well recognised and known/accepted by all - even dogs, chickens with the newly hatched. Thus - safety and reliability of the proposed prepayment meter system shouldn’t be too different from the current post payment meter system.

RE Section 2.15.
(1) I am not surprised of the findings of the Authority here - especially when the utility company itself conducted the impact assessment.

(2) I would be useful if the Authority and UNELCO agree for such an impact assessment be done “independently” in future. Through such undertaking, stakeholders will reduce basic of subjectivity and increase upon objectivity leading to credibility of outcome(s).

(3) Lastly, if we stress upon the customer’s ability to control energy consumption and conservation through awareness and public education in the concession areas, everyone will be better informed.

RE Section 2.16.

Phone customers pay actually considerably more to ensure they have credits available and secondly the phone company regularly entice users towards “free kals” promotions, free-text etc and users (if not careful) spend more with less strain on the service provider perhaps?

I agree with the stand of the Authority here. Prepayment meter system cannot be comparable with telecommunications solutions.

Tevi Obed (April 10, 2012)

I read your press release on the issue of prepaid meter and the response from UNELCO with great interest. My interest originates from an assessment report done during my internship with the South Australian Government in 2010. The assessment focuses on electricity retailing and user pay models in disadvantaged communities around the world, building a case for South Australian Government who provides electricity for free to some disadvantaged communities to introduce a user pay policy.

I have attached copy of the assessment report which might be of interest to you. Note that my client was the South Australian Government so I was basically building the case for the rolling of electricity retailing via prepaid meters. However, as the assessment shows and as you rightly stated in your press release, prepaid meters have its own disadvantages. While prepaid meter is widely seen as a useful tool to encourage consumption efficiency and control demand for electricity as well as reducing tariff costs by eliminating the costs of conventional meter readings, disconnection and reconnection costs, the social implications should be equally considered by the Government.

Some of the highlights of the assessment report that may be pertinent for your arguments are as follows;

- The argument for prepaid meters in terms of reducing tariff costs is more relevant for very remote areas where the costs of meter reading, disconnection and reconnection are significantly high.
- Prepaid meters can potentially hide utility hardship for disadvantaged families.
- Human rights based groups around the world have attacked prepaid meters as a source of unequal access to electricity given that electricity is an essential service that increasingly seen as a basic human right
- Traditional billing systems offers a much more flexible balance between user pay markets and provision of electricity as an essential service and provides a broader scope under which retailers can work with customers to sort their cash-flow problems.

Some implications of the case studies for prepayment meters in Vanuatu include;

- The introduction of emergency credit to ease the impacts of automatic power cuts on disadvantaged families and allow them time to top of their power credit.
- Rolling out of prepaid meters using a community based approach
- Some energy/electricity policies in the case studies may also be useful for Vanuatu.

B. J. Skane (April 30, 2012)
In accordance with the request from the Utilities Regulatory Authority (URA) for submissions from the public concerning the URA’s review on the approval of a prepayment meter system proposed by Unelco for its Port Vila, Malekula and Tanna concession areas below are my opinions on the matter. First, Unelco has operated as a monopoly in Vanuatu for over three quarters of a century and acts accordingly – that is with an attitude that portrays the “we can do anything we want”, “you can’t do without us” monopolistic concept to perfection.

This is plenty of evidence of this in the various reports the URA has made public over the years of its existence.

I personally have experienced Unelco’s monopolistic attitude with regard to their refusal to fix their mistakes at their own expense, rather insisting (totally illogically) that the customer would have to pay. Here I refer to the debacle at Groupe Nairobi subdivision of which the URA is well aware.

It was only our sheer determination as wronged consumers who believe principles speak louder than money that stopped Unelco from having its own way and that in the end forced them to fix their own mistakes at their own costs.

Unfortunately, there are probably hundreds of similar cases, perhaps thousands (particularly where the consumers/customers are ni-Vanuatu who are not sure of their rights and have no power to fight for them) where Unelco simply overrides their complaints, gives them no choice and in the end it is the consumer who foots the bill, not Unelco.

Another example of this is in the installation of prepaid meters in the year 2000 on Malekula and Tanna in a sweetheart deal done between Unelco and the Vanuatu Government of the day where Unelco provided meters incapable of dealing with tariff fluctuations as they routinely occur.

Those meters are allegedly the reason small domestic consumers on those islands are paying three times more than their counterparts on Efate and Santo since the Tariff Review of 2011.

Unelco says it is taking steps to change those meters to the newer style, but there is, I understand, no documentation to prove that they are actually doing so.

I believe those meters should ALL BE CHANGED to the new kind BEFORE any subsequent rollouts of prepaid meters take place on those or any other islands in Vanuatu.

Second, as can be easily verified by talking to small domestic consumers, their power bills are so small – about vT 1,000 per month – it is not worth Unelco’s while to send meter readers out, note the readings, print and post invoices etc etc. It makes much more financial sense for Unelco to get rid of all these overheads and have the consumer ‘read’ the meter and recharge whenever they start running out of credit thereby diminishing Unelco’s costs and responsibilities to the point of nothing.

It seems to me that Unelco is thereby encouraging the consumer to potentially have an interrupted supply of electricity rather than a continual one that in accordance with the Concession Unelco is legally bound to provide.

Third, Unelco still has very few options for payment of its accounts. One either has to go to their downtown office, post a cheque or use a direct debit.

Both the latter are unavailable to most small domestic consumers. Many do not operate bank accounts at all let alone cheque accounts.

I personally don’t trust Unelco with a direct debit, nor do I trust Vanuatu Post to get the cheque to them on time.
For that matter, at least six times, I have received cut-off notices from Unelco when I have put a cheque in their boîte au cheque at their head office on or before the due date, but a week or more later no one has looked in it to see if there are any cheques before mailing out the cut off notice.

Naturally, this has caused some nasty phone calls!

The bottom line of all this is Unelco’s current system fails miserably on many counts.

It is pure folly to install any new systems before they can get their current ones working properly.

If Unelco really wants to help the grassroots people of Vanuatu they should be encouraging them to manage their electricity properly by limiting usage, not by promoting a system whereby the service is cut until the credit is topped up.

In doing the latter they are not educating the Vanuatu people in the correct and sustainable use of the resources that go to providing the electricity in the first place at all.

Fourth, Unelco should be making it easier for everyone to pay their accounts by having payment places in the villages – Mele, Pango, Erakor – wherever there is electricity available, and perhaps in places like Stop Press where people visit often and, in a similar fashion to Australia, electricity and water bills can be paid thereby relieving people of a trip into town just to pay the Unelco bill.

Such an initiative would also help relieve at least a little bit of the congestion in town.

And of course there has been the totally misleading propaganda from Unelco which seems to have convinced a great many undereducated and unsuspecting ni-Vanuatu (and even some ex-pats) that pre-paid electricity is cheaper than post paid. There needs to be much more education to the people that it isn’t before any prepaid meter system is implemented.

Since the cost of electricity is exactly the same and if Unelco simply allowed payment of bills at the same places they intend putting recharge points for prepaid card chips or whatever, there would be no need at all to spend any funds on new meters. For that matter Unelco, with computers they way they are these days (we used to be quite able to do these things with a book!) there is no reason why village people could not pay ‘x’ amount per week and have it credited to their final monthly account.

Not impossible for any company that truly cared about its grassroots customers.

And fifth, there is the issue of the on-selling of electricity at the highest tariff and more by unscrupulous landlords who rent dog box style houses to the poorest of Port Vila’s urban poor. Unelco cannot be unaware of this practice but it allows it to continue and takes the money. If Unelco is going to install any prepaid meters for small domestic consumers, it is in these rented compounds that the first should be installed before any are installed in villages such as Mele, Pango, Erakor where people are comparatively a lot better off. The supply is already to the landlord’s premises from where he on-sells. Strictly speaking this on-selling is in breach of the Concession Agreement. It is certainly in breach of all moral codes I can think of and if Unelco is serious about wanting to help the grassroots people it is very simple for them to put a stop to it if they really care.

Unfortunately the overwhelming evidence suggests Unelco doesn’t. It cares only about its profit as shown by its continued and very expensive fight to regain the Concession in Luganville (at what ultimate cost to the consumer one can only wonder) and its apparent manipulation of Government Ministers that has become so commonplace for it over the years, using the same tactic in its fight to get its own way with the installation of prepaid meters that will benefit Unelco much more than any consumer is just business as usual for this monopoly insensitive to everything but its own profit.