



**September 6, 2010**

Hon. Zenaida G. Cruz-Ducut  
Energy Regulatory Commission  
Pacific Center Building  
San Miguel Avenue, Ortigas Center  
Pasig City

Dear Hon. Ducut:

**Clarifications on the Rules for Prepaid Retail Electric Service (ERC Resolution No. 15, Series of 2009)**

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We write to respectfully request for clarification from the Honorable Energy Regulatory Commission on several concerns involving particular provisions of the *Rules for Prepaid Electric Service Using a Prepaid Metering System* (the "Rules"), approved and adopted by the Honorable Energy Regulatory Commission in its Resolution No. 15, Series of 2009.

Xen Energy Systems, Inc. is a pioneering machine-to-machine and machine-to-mobile technology enabler and provider in the Asia Pacific Region, providing applications and platforms which support various industry segments in partnership with telecoms operators, system integrators, hardware and software vendors and related application developers.

We provide prepaid electricity meters and the necessary support services for that aim to meet the objectives of the Rules to provide residential customers a choice of energy management services, enhance operational efficiency of the distribution utility and promote demand side management.

We aim to introduce effective technology in our prepaid electricity meters and associated services. For the purchase of prepaid credits and energy management by the end-user customer, we utilize the same widely popular system and technology proven effective by telecommunication companies for prepaid mobile telephone credits. This ensures maximum accessibility and convenience for the end-user customers -- key to an effective prepaid metering system.

The prepaid meters enable customers to effectively manage their electricity consumption by monitoring real-time information reflected on an LCD display on the meter, thereby replacing the need for costly human meter reading. For reference, attached hereto is a copy of a brochure containing information on the features and advantages of our prepaid meters, which shall be made available to distribution utilities.

We are offering our prepaid metering system to the distribution utilities which intend to implement the prepaid electric service ("PRES"). However, we note certain concerns regarding the Rules, on which we seek clarification from the Honorable Commission:

1. **Fixed peso per kilowatt-hour rate.** It appears that the Rules contemplate the application of a fixed peso per kilowatt-hour ("P/kWh") rate.

The first and second paragraphs of Section 2.6<sup>1</sup> imply that the applicable rate for a prepaid transaction is the effective retail rate current at the time of the purchase of the credit. In addition, Section 2.7.5<sup>2</sup> requires that the amount of electricity energy credit in kilowatt-hours be included in the receipt or confirmation every time a residential customer makes a payment. Moreover, the second paragraph of Section 2.2<sup>3</sup> requires a warning to the residential when the remaining credit goes below set thresholds in peso and in kWh.

The foregoing imply that the electricity rate to be applied is set at the time of the purchase of the credit. The amount of electricity energy credit shall be fixed to an equivalent kWh at the time of the purchase. The electricity rate is set at a fixed P/kWh rate.

However, as the retail cost of electricity fluctuates, it is likely that the actual cost of the electricity may be either higher or lower at the time of purchase than its actual cost at the time of consumption. Consequently, to set the rate at the time of purchase is unrealistic and does not reflect the actual retail cost. This may be unfair to either the customer or the utility, as the case may be. It may result in under recovery or over recovery of costs on the part of the utility. On the other hand, it may result in the customer paying more or less than the actual cost of power.

This may give rise to hedging, where one may take advantage of the low cost of power by buying energy credits in bulk, and use the credits or even resell the same at a profit when the retail cost increases. It may also serve as a disincentive to the distribution utility to make prepaid credit available at a time when an increase in the cost is expected.

It may be more appropriate that the actual cost or price of electricity at the time of consumption be used as the basis for determining the equivalent energy credit, rather than the post-paid retail rate current at the time of the purchase of the credit. This would not only reflect the true rates, but will also obviate risk on the part of the utility and the customer in case of rate fluctuation. In the end, it will protect the interest of both the customers and the utility concerned.

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<sup>1</sup> "The DU should allow the **purchase of electric energy credit** in reasonably small increments.

Unless the DU applies for and the ERC approves a different tariff for prepaid meters, including the application of discounts, if any, **the rates to be applied in any prepaid transaction should be based on the effective post paid retail rate current at the time of purchase**; Provided, however, that the DU shall continue to charge the lifeline rate to residential customers whose consumptions during a particular month do not exceed the approved lifeline cap." (*Emphasis supplied*)

<sup>2</sup> "Section 2.7 Printed Receipt or Confirmation. Every time a residential customer makes a payment, the DU shall provide a receipt or written confirmation of payment that includes the following:

x x x

2.7.5 The amount of electricity energy credit **(in kilowatt-hours and in pesos)**." (*Emphasis supplied*)

<sup>3</sup> Second paragraph of Section 2.2: "The prepaid meter should also have the capability to communicate to the customer the current balance . . . and to warn the residential customer before the remaining credit level goes below the threshold **(in Peso and equivalent kWh)** as may be agreed upon by the residential customer and the DU." (*Emphasis supplied*)

Our system is capable of applying real-time changes in rate to reflect changes in the actual cost of electricity. This obviates the risks discussed above and will properly reflect the true cost of power.

In this regard, we seek clarification from the Honorable Commission on whether applying the true retail cost of power for prepaid transactions, as opposed to the a fixed rate set at the time of the purchase of credit, is compliant with or is permissible under the Rules.

2. **Requirement of written receipt or confirmation of payment.** Section 2.7<sup>4</sup> of the Rules requires that, every time a customer makes a payment, the distribution utility shall provide a receipt or written confirmation containing certain information.

We are of the view that convenience on the part of the end-users and the accessibility in the purchase of prepaid credits, as well as cost-efficiency for the distribution utility in the implementation of the prepaid service, are essential to the success of the service.

While the requirement of a written confirmation may be ideal, it necessarily requires the end-user customer to set aside time to go the distribution utility's office or payment centers, not to mention the cost of transportation, only to purchase prepaid credits and obtain the said receipt or written confirmation. This would be no different from a post-paid customer paying his electricity bill. This also necessitates additional services on the part of the distribution utility.

It may be noted that for prepaid mobile telephone credit, credit is easily accessible by the customers through convenience or sari-sari stores, which do not issue written receipts in favor of the telecommunications companies. The mobile phone user receives a Short Message Service ("SMS") message confirming the credit purchased, and may obtain his real-time prepaid balance anytime through SMS. This has been proven effective in the telecommunications industry.

With the expertise of our partner, ePLDT, our prepaid technology is identical to that utilized by the mobile telecommunications industry. It allows a customer to electronically load credit which shall be made available from retailers, such as convenience and sari-sari stores. Similar to the purchase of prepaid mobile phone credit, all the customer has to do is give the retailer his meter number and make payment. The customer shall, thereafter, receive an SMS confirmation of the purchase of credit containing the following information:

1. Name of distribution utility
2. Transaction Number
3. Date and time of Purchase
4. Meter Identification Number
5. Name of Customer
6. Load Amount
7. Number of transactions in the same month

A customer may easily also check his prepaid credit balance through SMS at any time. He may also opt to receive electronic prompts through SMS, once his energy credit drops to Php 50.00 or below.

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<sup>4</sup> "Section 2.7 Printed Receipt or Confirmation. Every time a residential customer makes a payment, the DU shall provide a **receipt or written confirmation of payment...**" (*Emphasis supplied*)

It would be more convenient for the customer, and cost efficient for the utility, to send the confirmation of payment of energy credits through SMS. The concept of selling energy credits at small amounts is similar to that of the sale of prepaid mobile phone credit in the telecommunication industry, where confirmation is likewise sent through SMS.

In fact, providers of prepaid electricity in South Africa, also send confirmation of payment via SMS, and not by a receipt or written confirmation.

As earlier mentioned, this has proven successful in the telecommunications industry. This success will certainly be replicated in the prepaid metering service.

However, unlike the telecom companies where the confirmation of purchase of prepaid credit is limited to SMS confirmation, customers may view the details of the purchase of electricity credit over the internet, which can be accessed at any time.

Finally, the customer may still obtain a written confirmation of the credit purchase at the distribution utility's office. All these will ensure that the customers will get the confirmation required under Section 2.7.

In this regard, we seek clarification from the Honorable Commission on whether confirmation by way of SMS, complemented by easy and immediate access to account information as well as the option of obtaining written confirmation from the distribution utility, is compliant with or is permissible under the Rules.

3. **Requirement of round-the-clock accessibility to purchase of prepaid credit.** Section 2.8<sup>5</sup> of the Rules requires that the end-user customer should have easy access to the purchase of prepaid credit for twenty-four (24) hours.

It appears that the purpose of such requirement is to ensure that a customer will not suffer an interruption of service if he is able to purchase prepaid credit. The requirement entails costs on the part of the distribution utility in maintaining an outlet open 24 hours a day for purchase of prepaid credit.

As previously discussed, in our prepaid system, electric energy credits may be purchased from authorized retailers, such as convenience or sari-sari stores, which are not open for business 24 hours a day. However, our system can be programmed not to interrupt the electric service during hours when the retailers are closed, even if the customer runs out of prepaid credit. For example, retailers operate business from 9:00 a.m. to 9:00 p.m. If a customer fails to reload his electric energy credit despite warning that his balance is Php 50.00 or below, and runs out of credit within 9:00 p.m. to 9:00 a.m. (off-hours), his electricity shall not be interrupted. He may still avail of electricity service until the time when he can already purchase electricity credits (or from 9:00 a.m.). During the off-hours, a customer may incur a negative balance in his credit, which will be netted out once he purchases credits.

We are of the view that such arrangement is more beneficial and offers more convenience, not to mention safety, to the customers, who will be constrained to travel to the distribution utility's office at ungodly hours only to purchase credit. It is likewise cost-

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<sup>5</sup> "The DU offering PRES using a prepaid metering system shall allow reasonable means by which the residential customer shall have **easy access to the purchase of electric energy for twenty four (24) hours** to ensure continuous service." (italics supplied)

effective for the distribution utility, who need not incur the costs of maintaining a 24-hour prepaid credit sales outlet, which costs will necessarily be passed on to the customers.

We likewise seek clarification from the Honorable Commission on whether such an arrangement is compliant with or is permissible under the Rules.

The implementation of the prepaid metering service, especially when it reflects the actual retail cost of power and coupled with the functionality, convenience and accessibility provided by SMS technology and retail distribution, will greatly benefit the customers by according an effective, effective and affordable means of purchasing electricity and managing electricity consumption.

With the Honorable Commission's clarification on the compliance or permissibility of our system's technology under the Rules, we will be able to provide such benefits to the customers and realize the policy objectives of the Honorable Commission in implementing the prepaid metering service. Further, for the information of the Honorable Commission, our prepaid meters are compliant with the other relevant provisions of the Rules, as follows:

*Article 2.2*

Our prepaid meters have been certified by the American National Standards Institute for both Forms 1S and 2S, for which compliance certificates were issued. Our meters display the previous 30-day consumption; number of days into the current period; and consumption into the period in kWh.

*Article 2.3*

The prepaid meters have passed the required tests conducted by the Metering Division of the Honorable Commission.

*Article 2.4*

The prepaid meters are weatherproof and can be easily installed, whether indoors or outdoors. The meters display information that will enable the customers to adequately manage their electricity. Prepaid credit balance may be accessed any time through SMS. Customers may also opt to receive electronic prompts through SMS once the energy credit drops to Php 50.00 or below.

*Article 2.6*

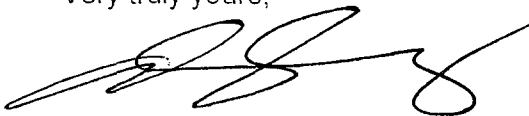
Customers whose consumption does not exceed the approved lifeline cap shall be given a rebate at the end of the period, via automatic load credits.

*Article 2.9*

Our prepaid metering system is capable of keeping our customers' records for at least the preceding two (2) years. Each customer shall be given a username and a password for access to his receipts and account/transaction history online.

We respectfully request clarification from the Honorable Commission on the foregoing. We greatly appreciate the Honorable Commission's action on this matter.

Very truly yours,



**Ariel R. dela Cruz**  
President