

Republic of the Philippines
ENERGY REGULATORY COMMISSION
San Miguel Avenue, Pasig City

**IN THE MATTER OF THE
APPLICATION FOR AUTHORITY
TO PROVIDE PREPAID RETAIL
ELECTRIC METERING SYSTEM,
WITH PRAYER FOR
PROVISIONAL AUTHORITY**

LACHICA & ASSOCIATES

RECEIVED BY: Jamari
DATE: Jan 15, 2014

ERC CASE NO. 2013-001 PRES

**BOHOL I ELECTRIC
COOPERATIVE, INC. (BOHECO I)
AND XEN ENERGY SYSTEMS,
INC. (XESI),**

Applicants.

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D O C K E T E D

Date: JAN 15 2014

By: JK

NOTICE OF PUBLIC HEARING

TO ALL INTERESTED PARTIES:

Notice is hereby given that on October 25, 2013, Bohol I Electric Cooperative, Inc. (BOHECO I) and Xen Energy Systems, Inc. (XESI) filed an application for authority to provide prepaid retail electric metering system, with prayer for provisional authority.

In the said application, BOHECO I and XESI alleged, among others, that:

1. BOHECO I is a non-stock, non-profit electric cooperative organized and existing under and by virtue of Presidential Decree No. 269, as amended, with office address at Cabulijan, Tubigon, Bohol. It has a franchise to distribute electricity in the Municipalities of Alburquerque, Antequa, Baclayon, Balilihan, Batuan, Bilar, Calape, Carmen, Catigbian, Clarin, Corella, Cortes, Dausi, Dimiao, Inaganga, Loay, Lila, Loboc, Loon, Maribojoc, Panglao, Sagbayan, San Isidro, Sevilla, Sikatuna, Tubigon, all in the Province of Bohol;

2. XESI is a corporation duly organized and existing by virtue of the laws of the Republic of the Philippines. Its principal office is located at Suite 412, Cityland Pasong Tamo Tower, 2210 Don Chino Roces Avenue, Pio Del Pilar, Makati City.
 - 2.1 XESI 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 telecommunications operators, system integrators, hardware and software vendors and related application developers;

NATURE OF THE APPLICATION

3. The instant application is filed pursuant to Section 3 of Rule 5 of the Commission's Rules of Practice and Procedure approved by the Commission on June 22, 2006 in its Resolution No. 38, Series of 2006, in relation to the "*Rules for Prepaid Retail Electric Service Using a Prepaid Metering System,*" (the Prepaid Metering Rules) approved by the Commission in its Resolution No. 17, Series of 2012;
4. The instant application does not require a new rate schedule, as the electricity rate to be applied is the BOHECO I's retail rate as already approved by the Commission. Hence, the present Application need not comply with the regulatory filing requirements for a rate case;

STATEMENT OF FACTS

5. The Prepaid Metering Rules were issued by the Commission to provide customers a choice for their energy management strategies, enhance the operational efficiency of distribution utilities, and promote demand side management;¹

¹ Section 1.1, Prepaid Metering Rules.

6. The implementation of a prepaid metering system will provide BOHECO I's residential customers with an effective means of managing their electricity consumption.
 - 6.1 As opposed to postpaid customers who will only know the extent of their electricity consumption through their bill at the end of every billing month, prepaid customers will be able to monitor their electricity costs on a real-time basis. Consequently, prepaid customers can manage and budget their electricity consumption more effectively.
 - 6.2 In addition, prepaid customers may purchase electricity credits in reasonably small amounts that are better suited for household budgeting, in view of the limited disposable income of the common Filipino household.
 - 6.3 Indeed, goods and services in reasonably small quantities available for reasonably small costs have proven to be best suited to the needs and financial resources of the common Filipino household. The Commission may take judicial notice of the prevalence of the purchase of household products in sachets or in small amounts, not to mention the popularity and ubiquity of prepaid mobile phone credits;
7. Thus, each prepaid customer can actively and conscientiously monitor and manage his electricity consumption to lower his power costs and to ensure that such costs are at a level he can afford;
8. Moreover, the implementation of a prepaid metering system enhances the operational efficiency of BOHECO I by obviating costs in relation to meter reading, billings and collections, connection and disconnection, uncollectible accounts, and pilferage, among others. The system also improves its revenue management system;
9. In addition, prepaid metering helps address other concerns such as customers who are unable to pay their bills or have been found guilty of illegal use of electricity,

and the common lessor's risk of lessees absconding and leaving behind unpaid electricity bills;

10. Thus, recognizing the need to enhance both the customers' energy management and BOHECO I's operational efficiency, they propose to implement a prepaid metering system for BOHECO I's customers;

THE PREPAID METERING SYSTEM

11. **XESI's Prepaid Metering System.** They propose to utilize XESI's prepaid metering system to provide prepaid retail electricity service to BOHECO I's residential customers. They submit that, as extensively discussed in the instant application, XESI's prepaid metering system complies with the relevant requirements under the Prepaid Metering Rules.

- 11.1 As discussed below, XESI's prepaid metering system utilizes the internet and mobile phone platforms to effect accurate real-time crediting and consumption of prepaid electricity credit, and provide easily accessible real-time prepaid credit information for the benefit of both the customers and the distribution utility.

- 11.2 In order to ensure accessibility, reliability and customer convenience in the distribution of prepaid electricity credit, XESI's system utilizes the same platform used in the distribution of prepaid mobile phone credit that reaches practically every *sari-sari* store level;

12. The internet and mobile phone platforms, along with the meters discussed below, have the capability of communicating to the customer all the required information allowing him to effectively manage his electricity consumption, such as the following: instantaneous energy consumption; the remaining balance in peso and kWh; the time and date; the customer's previous thirty (30) day-period consumption and the number of days into the current thirty (30) day-

period, followed by the consumption in kWh; among others.²

13. XESI's prepaid metering system is also capable of warning the customer three (3) days before his remaining credit is exhausted based on his average monthly consumption, with a threshold of ten (10) kWh for every one hundred (100) kWh;³
14. In addition, while XESI's system is proprietary, it is capable of inter-operating with different brands of meters, subject to the necessary reconfiguration.⁴

A copy of the technical specifications⁵ of XESI's prepaid metering system is attached to the instant application;

15. **The XESI Meters.** They will utilize Libra Form 1S, Class 100, 240 V) and Libra Form 2S, 3W, Class 200, 30A, 240V, 60Hz meters ("XESI Meters"). The XESI Meters comply with all the relevant requirements of the Prepaid Metering Rules.

15.1 The XESI Meters are capable to display real time information on how the load is being consumed and to give a warning that the load is close to zero providing a positive buffer before electricity is automatically disconnected.⁶ A copy of the technical specifications⁷ of the XESI Meters is attached to the instant application.

15.2 PRES Eligible Meters. The XESI Meters have been duly approved by the Commission and are eligible for use in Prepaid Retail Electric Service ("PRES") revenue metering.⁸ Copies of the relevant Certificates of Approval issued by the Commission are attached to the instant application.

² In compliance with Section 2.3, Prepaid Metering Rules.

³ In compliance with Sections 1.3, 2.3 and 2.5, Prepaid Metering Rules.

⁴ In compliance with Section 2.3, Prepaid Metering Rules.

⁵ In compliance with Section 2.1.2, Prepaid Metering Rules.

⁶ In compliance with Section 1.3, Definition of "Prepaid Meter" and "Advance Meter," Prepaid Metering Rules.

⁷ In compliance with Section 2.1.2, Prepaid Metering Rules.

⁸ In compliance with Section 2.2, Prepaid Metering Rules.

- 15.3 The XESI Meters comply with the standards of the American National Standards Institute ("ANSI"). Copies of the relevant ANSI meter test reports are attached to the instant application.
- 15.4 The XESI Meters also comply with the minimum requirements specified in the Prepaid Metering Rules, having passed the accuracy tests conducted by the Metering Division of the Commission.⁹ Copies of the relevant test results issued by the Commission are attached to the instant application;
16. **Record of charges.** XESI's prepaid metering system can store a record for each customer necessary to produce a summary of credit purchases and the corresponding charges, including the dates and amounts of payments made, for at least the preceding two (2) years;¹⁰
17. **Manner of purchase and crediting to customer's account.**¹¹ Under the XESI prepaid metering system, the purchase of energy credit as well as the crediting of accounts are akin to that of the prepaid mobile telephone service;
18. Similar to the purchase of prepaid mobile phone credit, where the customer informs the retailer of his mobile phone number and makes payment to the retailer, all the PRES customer has to do is to give the retailer his meter number and pay for his prepaid credit. Also, the retailer or *sari-sari* store attendant processes the transaction and credits the customer's account by way of Short messaging service ("SMS") using his mobile phone. A copy of XESI's manual illustrating its loading system is attached to the instant application.
- 18.1 **Utilization of well-established and proven prepaid credit distribution channels.** Prepaid electricity credit will be available to BOHECO I's customers through the same means and using the

⁹ In compliance with Section 2.3, Prepaid Metering Rules, with reference to the accuracy requirements in Section 2.4, Prepaid Metering Rules

¹⁰ In compliance with Sections 2.1.3, and 2.9, Prepaid Metering Rules.

¹¹ In compliance with Section 2.1.5, Prepaid Metering Rules.

same retail channels as prepaid mobile phone credits.

18.2 The retail distribution and sales of prepaid mobile phone credits is already well established and widely used, and has proven to be a very effective means of distributing prepaid credit.

18.3 Thus, the utilization of the same retail channels ensures the effective distribution of prepaid electricity credit, and facilitates the promotion of the prepaid metering system as well as customer acceptance and convenience.

18.4 **Accessibility and purchase of credit.** After the end of a billing month, BOHECO I issues billings to *postpaid* electricity customers for the electricity consumed within that billing month. Such customers then pay their bills at BOHECO I's office or payment centers. In contrast, *prepaid* electricity customers purchase, either from the DU or the retailer (e.g., *sari-sari* store), the electricity credits which are then "loaded" into their respective accounts, much in the same way as one purchases prepaid mobile phone load for his prepaid phone account.

18.5 **Accessibility of credit.** Convenience for the customers and accessibility of prepaid credit for purchase are critical to the successful implementation of PRES.

18.6 Thus, prepaid credit will be made available through retailers, such as *sari-sari* stores, as well as at BOHECO I's main office and payment centers.¹² A prepaid electricity customer need only go to the neighborhood *sari-sari* store to purchase credits, in the same way as he would mobile phone credit. Unlike postpaid customers, he will not need to go to BOHECO I's office or payment centers to queue and pay his electricity bills, thereby saving time and transportation costs.

¹² In compliance with Section 2.1.11, Prepaid Metering Rules.

18.7 **Purchase of credit.** The purchase of prepaid mobile phone credit is subject to a nominal fee to cover, among others, the costs of distribution of credit to retailers or *sari-sari* stores. Often, the fee varies from *sari-sari* store to *sari-sari* store, depending on the retailer. Similarly, prepaid electricity credit is subject to a nominal fee lower than the transaction fee of mobile phone providers. The credit shall be applied to the actual cost of electricity only. The nominal fee, on the other hand, covers the cost of retail distribution of credits, the management and operation of the prepaid metering system, among others.

18.8 **Application of credit.** Electricity credits are "loaded" into a customer's account, much in the same way as prepaid mobile phone load is credited in one's prepaid phone account. The credited load is then applied to his electricity consumption on a real-time basis, similar to the application of mobile phone credit when the customer makes phone calls or sends text messages.

18.9 **Confirmation of credit purchase¹³ and format of confirmation.¹⁴** Under the XESI's system, the customer may, upon registration as a prepaid electricity consumer, register his mobile phone number for SMS notifications. Once registered, he shall receive confirmation of the purchase of credit by way of an SMS showing the following information:

- a. Name of distribution utility, *e.g.*, BOHECO I;
- b. Receipt Number;
- c. Date and time of loading or activation of energy credit;
- d. Meter identification number (either the name of the registered customer, or meter and/or service identification number);
- e. Amount of electricity energy credit (in kWh and in pesos);
- f. Tariff charge;

¹³ In compliance with Section 2.8, Prepaid Metering Rules.

¹⁴ In compliance with Sections 2.1.10 and 2.3, Prepaid Metering Rules.

- g. Number of transactions in the same month;
and
- h. Tariff charge.¹⁵

A print out of a sample SMS confirmation is attached to the instant application.

18.10 Also, upon registration as a prepaid electricity customer, the customer is given a username and password to access his account history online. Thus, the customer may access a virtual bill, transaction history and all other relevant details of his account, including his credit purchases over the internet at any time.¹⁶

Printouts of webpages showing sample customer account information accessible online are attached to the instant application.

18.11 The customer may obtain a written confirmation of his credit purchases at BOHECO I's office in the form of copies of the said printouts.

18.12 The customer may also view the details of his account on the Liquid Crystal Display ("LCD") screen on the XESI Meter itself;

19. **Terms and conditions of service.**¹⁷ A summary of the terms and conditions of service to customers is attached to the instant application;

20. **Recovery of costs.**¹⁸ Under the Prepaid Metering Rules, customers shall not be made to advance the cost of or purchase the prepaid meters. Prepaid meter deposits shall not be collected from the customers.¹⁹

20.1 As the cost of prepaid meters constitutes capital cost on the part of BOHECO I, such cost be

¹⁵ In compliance with Sections 2.1.10 and 2.8, Prepaid Metering Rules.

¹⁶ In compliance with Sections 2.1.10 and 2.8, Prepaid Metering Rules.

¹⁷ In compliance with Section 2.1.6, Prepaid Metering Rules.

¹⁸ In compliance with Section 2.1.7, Prepaid Metering Rules.

¹⁹ In compliance with Section 2.6, Prepaid Metering Rules.

recovered in the same manner as other capital costs, subject to the filing of the appropriate application with the Commission;

21. **Application of the retail rate.**²⁰ The rate to be applied shall be based on the applicable postpaid retail rate current at the particular month the credited load was consumed.²¹ Any remaining credits from a previous month's consumption shall be adjusted based on the applicable postpaid retail rate in the succeeding month,²²
22. **Reasonable increments of credit.** Prepaid credit will be made available to customers at reasonably small increments of P100;²³
23. **Implementation of Lifeline Rate and required discounts.** The lifeline rate under Section 73 of Republic Act No. 9136 will be implemented for prepaid customers.²⁴ A prepaid customer who does not reach the relevant electricity consumption threshold at the end of a billing month will receive the appropriate rebate in his credit;
24. In addition, XESI's system is capable of implementing other mandated adjustments, such as the discount to senior citizens under Republic Act No. 9994;
25. **Notification of unbundled charges.** In order to inform prepaid customers of the unbundled components of BOHECO I's prevailing retail rate,²⁵ BOHECO I shall post a printed itemization at its main office and payment centers, and shall furnish a copy to a residential customer upon his request. In addition, the itemization shall be easily accessible by the prepaid customer online;
26. **Conversion procedure and bill deposit refund.**²⁶ The procedure that BOHECO I seeks to apply in the

²⁰ In compliance with Section 2.1.8, Prepaid Metering Rules.

²¹ In compliance with Section 2.7, Prepaid Metering Rules.

²² *Ibid.*

²³ In compliance with Section 2.7, Prepaid Metering Rules.

²⁴ In compliance with Sections 2.1.9 and 2.7, Prepaid Metering Rules.

²⁵ In compliance with Section 5.2, Prepaid Metering Rules.

²⁶ In compliance with Section 2.1.12, Prepaid Metering Rules.

conversion of customers from post-paid to prepaid service, and vice-versa, including the refund and payment of the bill deposit is attached to the instant application;²⁷

27. **Target date for implementation.**²⁸ BOHECO I intends to offer and provide PRES to its customers within a reasonable time from the issuance of the appropriate authority by the Commission.²⁹

27.1 **Pilot Tests.** In order to ensure that reliable implementation of the prepaid metering service, Applicants have successfully conducted pilot runs of the system ending on September 7, 2013;

28. **Information campaign.**³⁰ In order to inform its customers of its offer to provide PRES such that they may make informed decisions on whether to subscribe to the said service, BOHECO I will, with the assistance of XESI, undertake a program to duly inform its customers of the various aspects of the PRES.³¹

The details of the information campaign are contained in the instant application;

29. **Monitoring of Consumption and Low-Balance Warning.**³² XESI's system allow the customers to monitor and manage the rate at which they consume energy as well as to receive warning when credit drops to the required threshold.³³

29.1 In particular, the XESI Meters enable customers monitor real-time information on an LCD screen. The LCD screen shows the following:³⁴

²⁷ In compliance with Section 2.1.12 and in accordance with Section 2.10 and Article III, Prepaid Metering Rules.

²⁸ In compliance with Section 2.1.14, Prepaid Metering Rules.

²⁹ In compliance with Section 2.1.13, Prepaid Metering Rules.

³⁰ In compliance with Section 2.1.14, Prepaid Metering Rules.

³¹ In compliance with Section 2.1.14, Prepaid Metering Rules.

³² In compliance with Section 2.5, Prepaid Metering Rules.

³³ In compliance with Section 2.5, Prepaid Metering Rules.

³⁴ In compliance with Sections 1.3, 2.3 and 2.5, Prepaid Metering Rules.

- a. the instantaneous energy consumption on a real-time basis;
- b. the remaining balance in pesos and kWh ;
- c. the time and date;
- d. the customer's previous thirty (30) day-period consumption and the number of days into the current thirty (30) day-period; and
- e. the consumption into the period in pesos and in kWhs.

29.2 In order to provide sufficient warning to the customer, the XESI Meters have a red Light Emitting Diode ("LED") light that can be set to flash three (3) days before the customer's remaining credit is exhausted, based on his average monthly consumption, with a threshold of ten (10) kWh for every one hundred (100) kWh.³⁵ The customer may also opt to receive automatic low credit balance alerts via SMS once his credit drops below the said threshold.³⁶

29.3 In addition, and as discussed above, the customer may access his prepaid credit balance in pesos and kWh at any time through SMS.

29.4 To address the necessary costs of SMS services and, at the same time, ensure that the customers are not unduly burdened, the SMS services are subject to a per-SMS fee that is not greater than the fee imposed by mobile phone operators for similar value-added service. These SMS services include credit purchase confirmation, balance inquiries, and low balance alerts.

29.5 The customer may also access a virtual bill, transaction history and all other relevant details of his account over the internet at any time. Thus, the customer could monitor his consumption through the SMS notifications and online bill;

³⁵ In compliance with Sections 1.3, 2.3 and 2.5, Prepaid Metering Rules.

³⁶ In compliance with Sections 1.3, 2.3 and 2.5, Prepaid Metering Rules.

30. **Monitoring and Compliance with Reportorial Requirements.**³⁷ XESI's system enables BOHECO I to easily and effectively monitor all prepaid metering transactions and electricity consumption, and maintain and access records of the same. XESI's system provides BOHECO I with real-time online interface for monitoring as well as record keeping over at least the preceding two (2) years.³⁸

30.1 XESI's system greatly facilitates BOHECO I's compliance with the Commission's record keeping³⁹ and reportorial requirements,⁴⁰ as well as customer requests for account information and records.⁴¹ With XESI's system, the required information is readily available and may be easily extracted in a matter of seconds, thereby reducing administrative costs and enhancing operational efficiency;

31. **Non-interruption of service during off-hours.** Electricity service is interrupted when the customer runs out of credit despite low-balance warnings. However, service will not be interrupted if the customer runs out of credit because there is no credit available for purchase.

31.1 XESI's system is programmed not to interrupt the electric service during hours when retailers and BOHECO I's 'office and payment centers are closed ("off-hours"), even if the customer runs out of prepaid credit.

31.2 The customer may still avail of electricity service until the time he can already purchase credit, or when the retailers or BOHECO I's office and payment centers are open. During off-hours, the customer may incur a negative balance in his credit, which will be netted out once he purchases credits;

³⁷ In compliance with Article IV, Prepaid Metering Rules.

³⁸ In compliance with Section 2.1.3, Prepaid Metering Rules.

³⁹ In compliance with Section 2.9, Prepaid Metering Rules.

⁴⁰ In compliance with Article IV, Prepaid Metering Rules.

⁴¹ In compliance with Section 2.9, Prepaid Metering Rules.

32. **Regulatory approval of identical PRES implementation.** The Commission has previously approved the implementation of the PRES utilizing XESI's Prepaid Metering System in ERC Case No. 2011-001 and ERC Case No. 2011-002.
- 32.1 The present Application involves the implementation of the same system, with only minor modifications to ensure compliance with the recent amendments to the Prepaid Metering Rules;
33. Given the foregoing, the implementation of the prepaid metering system proposed herein clearly complies with all the relevant requirements of the Prepaid Metering Rules;
34. They seek to offer and provide the prepaid metering system at the earliest possible time in order to provide BOHECO I's customers with an effective, convenient and affordable means of managing their energy consumption;
35. Verily, the cost of electricity service represents a necessary monthly financial burden to every household, particularly those with limited spending capacity. Thus, it would greatly benefit the customers of BOHECO I to avail of, at the earliest possible time, a means by which to effectively monitor and control their power consumption, and pay for the same through means easily within their spending capacity;
36. In addition, the implementation of the Prepaid Metering System entails significant preliminary work to establish the system and retail network, as well as to conduct an information campaign to sufficiently apprise the customers of the Prepaid Metering Service;
37. The issuance of a provisional approval by the Commission will greatly facilitate the conduct of such preliminary work and ensure the availability of the prepaid metering system to BOHECO I's customers at the soonest possible time; and

38. Thus, they pray that the Commission:

- a. Immediately issue an Order granting provisional approval of the present application, including the prayer for exception from certain provisions of the Prepaid Metering Rules, so that the Applicants can already implement the proposed Prepaid Metering System; and
- b. After due hearing, render a Decision making such provisional approval permanent.

The Commission has set the application for jurisdictional hearing, expository presentation, pre-trial conference and evidentiary hearing on **February 4, 2014 (Tuesday), at two o'clock in the afternoon (2:00 P.M.) at the ERC Hearing Room, 15th Floor, Pacific Center Building, San Miguel Avenue, Pasig City.**

All persons who have an interest in the subject matter of the proceeding may become a party by filing, at least five (5) days prior to the initial hearing and subject to the requirements in the ERC's Rules of Practice and Procedure, a verified petition with the Commission giving the docket number and title of the proceeding and stating: (1) the petitioner's name and address; (2) the nature of petitioner's interest in the subject matter of the proceeding, and the way and manner in which such interest is affected by the issues involved in the proceeding; and (3) a statement of the relief desired.

All other persons who may want their views known to the Commission with respect to the subject matter of the proceeding may file their opposition to the application or comment thereon at any stage of the proceeding before the applicants conclude the presentation of their evidence. No particular form of opposition or comment is required, but the document, letter or writing should contain the name and address of such person and a concise statement of the opposition or comment and the grounds relied upon.

All such persons who may wish to have a copy of the application may request the applicants, prior to the date of the initial hearing, that they be furnished with a copy of the application. The applicants are hereby directed to furnish all those making a request with copies of the application and its attachments, subject to

reimbursement of reasonable photocopying costs. Likewise, any such person may examine the application and other pertinent records filed with the Commission during the usual office hours.

WITNESS, the Honorable Chairperson, **ZENAIDA G. CRUZ-DUCUT**, and the Honorable Commissioners, **ALFREDO J. NON**, **GLORIA VICTORIA C. YAP-TARUC**, and **JOSEFINA PATRICIA A. MAGPALE-ASIRIT**, Energy Regulatory Commission, this 13th day of January, 2014 at Pasig City.


ATTY. FRANCIS SATURNINO C. JUAN
Executive Director III