

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

IN THE MATTER OF THE  
APPLICATION FOR APPROVAL  
OF THE PROPOSED PREPAID  
METERING SYSTEM AND FOR  
AUTHORITY TO PROVIDE  
PREPAID RETAIL ELECTRIC  
SERVICE, WITH PRAYER FOR  
PROVISIONAL AUTHORITY

ERC CASE NO. 2011-002 PRES

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

Applicants.

x-----x

DOCKETED  
Date: MAY 24 2013  
By: \_\_\_\_\_

**DECISION**

On December 20, 2011, Xen Energy Systems, Inc. (XESI) and Bohol II Electric Cooperative, Inc. (BOHECO II) filed an application for approval of their proposed prepaid metering system and for authority to provide prepaid retail electric service, with prayer for provisional authority.

In the said application, XESI and BOHECO II alleged, among  
ELECTRIC COOPERATIVE, INC.  
(BOHECO II),

Applicants.

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**DECISION**

On December 20, 2011, Xen Energy Systems, Inc. (XESI) and Bohol II Electric Cooperative, Inc. (BOHECO II) filed an application for approval of their proposed prepaid metering system and for authority to provide prepaid retail electric service, with prayer for provisional authority.

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

1. BOHECO II is an electric cooperative duly organized and existing under and by virtue of Presidential Decree No. 269, as amended, with office address at Cantagay, Municipality of Jagna, Province of Bohol;

- 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;
- 2.2 XESI is a provider of prepaid electricity meters and the associated support services;
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. 15, Series of 2009;
4. The instant application does not require a new rate schedule, as the electricity rate to be applied is the BOHECO II'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;
5. Prepaid electricity metering systems, while not new in other countries, are yet to be implemented in the Philippines and in its regulatory setting. Thus, the Prepaid Metering Rules were issued by the Commission "*Prepaid Metering System,*" (the Prepaid Metering Rules) approved by the Commission in its Resolution No. 15, Series of 2009;
4. The instant application does not require a new rate schedule, as the electricity rate to be applied is the BOHECO II'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;
5. Prepaid electricity metering systems, while not new in other countries, are yet to be implemented in the Philippines and in its regulatory setting. Thus, the Prepaid Metering Rules were issued by the Commission to provide residential customers a choice for their energy management strategies, enhance the operational efficiency of Distribution Utilities (DUs), and promote Demand Side Management (DSM);
6. The implementation of a prepaid metering system will provide BOHECO II's residential customer with an

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 amounts that are reasonably small and 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 ensure that such costs are at a level he can afford;
8. The implementation of a prepaid metering system enhances the operational efficiency of BOHECO II by obviating costs in relation to meter reading, billings and collections, uncollectible accounts, pilferage, among others:  
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 ensure that such costs are at a level he can afford;
8. The implementation of a prepaid metering system enhances the operational efficiency of BOHECO II by obviating costs in relation to meter reading, billings and collections, uncollectible accounts, pilferage, among others;
9. The prepaid metering helps address other concerns such as residential 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;

11. The utilization of XESI's prepaid metering system is to provide Prepaid Retail Electricity Service to BOHECO II's residential customers. The proposed prepaid metering system complies with the relevant requirements under the Prepaid Metering Rules;
  - 11.1 As discussed below, XESI's prepaid metering system utilizes 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; and
  - 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 XESI Meters.** They will utilize Form 1S and 2S meters (XESI Meters). The XESI Meters comply with all the relevant requirements of the Prepaid Metering Rules;
  - 12.1 The XESI Meters have the capability to load purchased credit, 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; 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 XESI Meters.** They will utilize Form 1S and 2S meters (XESI Meters). The XESI Meters comply with all the relevant requirements of the Prepaid Metering Rules;
  - 12.1 The XESI Meters have the capability to load purchased credit, 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;
  - 12.2 **XESI Meters duly certified.** The XESI Meters comply with the standards of the American National Standards Institute (ANSI). The Meters have also passed tests conducted by the Metering Division of the Commission;

Liquid Crystal Display (LCD) screen, which replaces the need for costly human meter reading. The LCD screen shows the following:

- a) the current balance in pesos and centavos;
- b) the time and date;
- c) the customer's previous thirty (30) day-period consumption;
- d) the number of days into the current period; and
- e) the consumption into the period in kWh;

12.4 Under XESI's system, the customer may access his prepaid credit balance at any time through Short Message Service (SMS). Upon registration as a prepaid electricity customer, he is given a username and password to access account history online. Also, the customer may register his mobile phone number for SMS notifications. The customer may also access a virtual bill, transaction history and all other relevant details of his account over the internet at any time;

12.5 In order to provide sufficient warning to the customer, the Meters have a red Light Emitting Diode (LED) light that flashes if the remaining credit is at fifty pesos (PhP50) and below. The customer may also opt to receive automatic low credit balance alerts via SMS once his credit drops to PhP50.00 or below;

12.6 In order to facilitate the customer's management of Also, the customer may register his mobile phone number for SMS notifications. The customer may also access a virtual bill, transaction history and all other relevant details of his account over the internet at any time;

12.5 In order to provide sufficient warning to the customer, the Meters have a red Light Emitting Diode (LED) light that flashes if the remaining credit is at fifty pesos (PhP50) and below. The customer may also opt to receive automatic low credit balance alerts via SMS once his credit drops to PhP50.00 or below;

12.6 In order to facilitate the customer's management of his energy utilization, XESI's system ensures that he is duly informed of the relevant details of his prepaid account, including each purchase of prepaid credit, and that he has a record of the same;

12.7 **Installation of XESI Meters.** The XESI Meters are weatherproof and can be easily installed, whether

thus be utilized for the implementation of the prepaid metering system. The Commission's approval would greatly facilitate the provision of prepaid retail electricity service by DUs;

14. **Approved retail rate effectively applied.** They propose that the rate to be applied to prepaid electricity customers be the actual cost of electricity service at the time of consumption. The actual cost is BOHECO II's retail rate approved by the Commission, the same rate paid by postpaid customers. Such rate is the only rate that is fair and beneficial to the prepaid electricity customers since the electricity service that BOHECO II will extend to them will be equivalent to the amount of the credit purchased;

- 14.1 The actual cost of electricity service at the time of consumption is not known yet or determinable at such time. It is only after the end of the billing period that BOHECO II will have the information necessary to determine the retail rate for such billing period, which information includes the generation charges, power delivery service charges, and the like. Information like the said charges will be known to BOHECO II only when it receives the billings from its power suppliers and the transmission service provider;

- 14.2 It is appropriate to apply the best available rate, that is, a rate that that most closely approximates the actual cost at the time of consumption. The best available rate may be BOHECO II's most recent available rate, which is likely the retail rate of the such time. It is only after the end of the billing period that BOHECO II will have the information necessary to determine the retail rate for such billing period, which information includes the generation charges, power delivery service charges, and the like. Information like the said charges will be known to BOHECO II only when it receives the billings from its power suppliers and the transmission service provider;

- 14.2 It is appropriate to apply the best available rate, that is, a rate that that most closely approximates the actual cost at the time of consumption. The best available rate may be BOHECO II's most recent available rate, which is likely the retail rate of the previous billing period or the second previous billing period;

- 14.3 There may be a difference between the best available rate and the actual cost. Thus, there is a need to make appropriate adjustments when the actual cost is determined to ensure that any over-recovery resulting from such difference on the part

- 14.4 With the adjustment, the customer ends up paying the actual cost of electricity service. The application of the best available rate at the time of electricity consumption as well as the necessary adjustment to correct any over- and under-recoveries can be easily and securely implemented by XESI's system;
15. They propose that the best available rate at the time of electricity consumption be applied, subject to the necessary adjustments at the end of the billing month;
16. They submit that the actual cost of electricity service at the time of consumption should be applied to prepaid electricity transactions, instead of the rate current at the time of the purchase of the credit as indicated in the Prepaid Metering Rules;
- 16.1 The rate at the time of credit purchase does not reflect the actual cost of electricity service. If such rate is applied, both BOHECO II and the prepaid customers are exposed to the risks of rate fluctuation. This will result in over-payment on the part of the prepaid customers or under-recovery on the part of BOHECO II;
- 16.2 In contrast, the application of the rate at the time of consumption not only reflects the actual cost of electricity service, but will also obviate the risk of rate fluctuation. It will also be fair and beneficial to the customers since the electricity service that BOHECO II will extend to them will be equivalent to the amount spent. In the end, it will protect the
- 16.1 The rate at the time of credit purchase does not reflect the actual cost of electricity service. If such rate is applied, both BOHECO II and the prepaid customers are exposed to the risks of rate fluctuation. This will result in over-payment on the part of the prepaid customers or under-recovery on the part of BOHECO II;
- 16.2 In contrast, the application of the rate at the time of consumption not only reflects the actual cost of electricity service, but will also obviate the risk of rate fluctuation. It will also be fair and beneficial to the customers since the electricity service that BOHECO II will extend to them will be equivalent to the amount spent. In the end, it will protect the interest of both the customers and BOHECO II;
17. **Implementation of lifeline rate.** The lifeline rate under Section 73 of Republic Act No. 9136 will be implemented for prepaid customers. A prepaid customer who does not reach the relevant electricity consumption threshold at the end of a billing month will receive the appropriate rebate

through the same means and using the same retail channels as prepaid mobile phone credits;

19. They submit that 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 distribution of prepaid credit;
20. 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;
21. **Purchase of prepaid electricity credit.** Postpaid electricity customers are issued billings by BOHECO II after the end of the billing month for electricity consumed within that billing month. The customers then pay their bills at BOHECO II's office or payment centers. In contrast, prepaid electricity customers purchase electricity credits which are "loaded" in their respective accounts, much in the same way as one purchases prepaid mobile phone load for his prepaid phone account;
22. The prepaid load credited to the customer's account is 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;
23. 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, within that billing month. The customers then pay their bills at BOHECO II's office or payment centers. In contrast, prepaid electricity customers purchase electricity credits which are "loaded" in their respective accounts, much in the same way as one purchases prepaid mobile phone load for his prepaid phone account;
22. The prepaid load credited to the customer's account is 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;
23. 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;
24. Prepaid electricity credit is subject to a nominal fee lower than the transaction fee of mobile phone providers. As explained previously, 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;



25. **Accessible prepaid electricity credit.** They submit that convenience for the customers and accessibility of prepaid credit for purchase are critical to the successful implementation of PRES;
- 25.1 To ensure convenience and accessibility to all customers, prepaid credit will be made available through retailers, such as sari-sari stores, as well as at BOHECO II's main office and payment centers. 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 set aside time and incur transportation costs to go to BOHECO II's office or payment centers; and
- 25.2 Unlike postpaid customers, a prepaid customer will not need to go to BOHECO II's office or payment centers during working hours and queue to pay his electricity bills. He only needs to go to the neighborhood sari-sari store at his convenience, saving time and transportation costs;
26. **Credit in reasonably small increments.** Prepaid credit will be made available to customers at PhP100 increments. They submit that the PhP100 is reasonably affordable to customers;
27. **Manner of purchase and crediting to account.** Under the XESI system, the purchase and crediting of prepaid electricity accounts akin to the prepaid mobile telephone service:
- not need to go to BOHECO II's office or payment centers during working hours and queue to pay his electricity bills. He only needs to go to the neighborhood sari-sari store at his convenience, saving time and transportation costs;
26. **Credit in reasonably small increments.** Prepaid credit will be made available to customers at PhP100 increments. They submit that the PhP100 is reasonably affordable to customers;
27. **Manner of purchase and crediting to account.** Under the XESI system, the purchase and crediting of prepaid electricity accounts akin to the prepaid mobile telephone service;
- 27.1 Similar to the purchase of prepaid mobile phone credit where the customer informs the retailer of his mobile phone number and make payment, all the prepaid customer has to do is give the retailer his meter number and pay for his prepaid credit. Also, the retailer or sari-sari store attendant processes

27.2 **Confirmation of credit purchase.** If the customer registered his mobile phone number with the XESI system for SMS notifications, the customer 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 II;
- b) Transaction Number;
- c) Date and time of purchase;
- d) Meter identification number;
- e) Name of customer;
- f) Load amount; and
- g) Number of transactions in the same month;

27.3 The customer may, if he so desires, obtain at BOHECO II's office a written confirmation of the credit purchase and of any other aspect of his account; and

27.4 The customer may access his account details anytime through SMS or through the internet. He may also view the details of his account on the LCD screen on the meter itself;

28. The Prepaid Metering Rules require a printed confirmation of credit purchase. They propose the utilization of SMS confirmation;

28.1 It is clear that the purpose of the requirement is to ensure that the customer is duly informed of the relevant details of his purchase of the prepaid account; and

27.4 The customer may access his account details anytime through SMS or through the internet. He may also view the details of his account on the LCD screen on the meter itself;

28. The Prepaid Metering Rules require a printed confirmation of credit purchase. They propose the utilization of SMS confirmation;

28.1 It is clear that the purpose of the requirement is to ensure that the customer is duly informed of the relevant details of his purchase of the prepaid credit, and that he may have a record of the same. However, printed confirmation is more appropriate for credit purchases made at BOHECO II's main office or payment centers. It is not necessarily appropriate for credit purchases made through retailers;

28.2 For prepaid mobile phone credit purchases, retailers

- 28.3 Should written confirmation be required, credit cannot be made available through retailers. As discussed, availability of credit through retailers provides the accessibility and convenience on the part of the customers that is crucial to the successful implementation of any prepaid metering system. Without such accessibility and convenience, an effective and successful prepaid metering system is not possible; and
- 28.4 They submit that confirmation of credit purchase through SMS, complemented by easy and immediate access to account information, also through SMS, and the option of obtaining written confirmation at BOHECO II's office sufficiently ensure that the interests of the customers are protected. The objective of the Rules to ensure that the customer is duly informed of the relevant details of his credit purchase and that he may have a record of the same are more than adequately met;
29. The distribution and sales of prepaid credit through retailers obviates the need for BOHECO II to issue billings and collect payments from the customers, thereby reducing costs and enhancing operational efficiency;
30. **Non-interruption of service during off-hours.** Electricity service is interrupted when the customer runs out of prepaid credit despite low-balance warnings from his meter and through SMS. However, service should not be interrupted if the customer runs out of credit because there is no credit available for purchase;  
the customer is duly informed of the relevant details of his credit purchase and that he may have a record of the same are more than adequately met;
29. The distribution and sales of prepaid credit through retailers obviates the need for BOHECO II to issue billings and collect payments from the customers, thereby reducing costs and enhancing operational efficiency;
30. **Non-interruption of service during off-hours.** Electricity service is interrupted when the customer runs out of prepaid credit despite low-balance warnings from his meter and through SMS. However, service should not be interrupted if the customer runs out of credit because there is no credit available for purchase;
- 30.1 XESI's system shall be programmed not to interrupt the electric service during hours when retailers and BOHECO II's office and payment centers are closed ("off-hours"), even if the customer runs out of prepaid credit;

customer may incur a negative balance in his credit, which will be netted out once he purchases credits;

30.3 BOHECO II will not need to incur the costs of maintaining at least one outlet for prepaid credit open 24 hours a day for purchase of prepaid credit, which costs will necessarily be passed on to its customers;

31. The foregoing arrangement ensures electricity service is not interrupted by reason of unavailability of electricity credit, while at the same time obviating the necessity of additional costs on the part of BOHECO II;

32. While the Prepaid Metering Rules require that customers shall have easy access to prepaid credit 24 hours a day, they propose the foregoing arrangement to ensure that the customer's rights are more than adequately protected;

32.1 It is clear that the policy objective of such requirement is to ensure that a customer will not suffer an interruption of service due to unavailability of credit for purchase; and

32.2 They submit that the foregoing arrangement ensures that such objective is met, while at the same time obviating the necessity of additional costs on the part of BOHECO II in maintaining a sales outlet twenty-four (24) hours a day, which costs are necessarily passed on to the customers. In addition, the arrangement is more beneficial and they propose the foregoing arrangement to ensure that the customer's rights are more than adequately protected;

32.1 It is clear that the policy objective of such requirement is to ensure that a customer will not suffer an interruption of service due to unavailability of credit for purchase; and

32.2 They submit that the foregoing arrangement ensures that such objective is met, while at the same time obviating the necessity of additional costs on the part of BOHECO II in maintaining a sales outlet twenty-four (24) hours a day, which costs are necessarily passed on to the customers. In addition, the arrangement is more beneficial and convenient to the customers, since they will no longer be constrained to travel to the sales outlet at ungodly hours only to purchase credit;

33. **SMS notifications and services.** As mentioned earlier, upon registration as a prepaid electricity customer, the customer may register his mobile phone number for SMS notifications and other SMS-based services provided by

34. **Notifications of unbundled charges.** In order to inform prepaid customers of the unbundled components of BOHECO II's prevailing retail rate, BOHECO II 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;
35. **Terms and conditions of service.** A summary of the terms and conditions of service to customers and the procedure that BOHECO II seeks to apply in the conversion of customers from post-paid to prepaid service, and vice-versa, including the refund and payment of the bill deposit is contained in the instant application;
36. **Monitoring and compliance with reportorial requirements.** XESI's system enables BOHECO II 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 II with real-time online interface for monitoring as well as record keeping over at least the preceding two years;
37. XESI's system greatly facilitates BOHECO II's compliance with the Commission's record keeping and reportorial requirements, as well as customer requests for account information and records. 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;
37. **requirements.** XESI's system enables BOHECO II 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 II with real-time online interface for monitoring as well as record keeping over at least the preceding two years;
37. XESI's system greatly facilitates BOHECO II's compliance with the Commission's record keeping and reportorial requirements, as well as customer requests for account information and records. 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;
38. **Recovery of cost of meters.** Under 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;
39. As the cost of prepaid meters constitutes capital cost on

40. **Target date for implementation.** BOHECO II intends to offer and provide PRES to its customers within a reasonable time from the issuance of the appropriate authority by the Commission;
41. **Information campaign.** 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 II will, with the assistance of XESI, undertake a program to duly inform its customers of the various aspects of the PRES;
42. **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 June 03, 2011;
43. Under the Prepaid Metering Rules, the Commission may allow an exception from any provision of the said Rules where good reason appears and if such exception is in the public interest and is not contrary to law, rules and regulations;
44. For the reasons extensively discussed above, they move for an exception from the provisions of the said Rules, particularly Section 2.6 on the application of the rate at the time of credit purchase, Section 2.7 on the requirement of a written confirmation of credit purchase, and Section 2.8 on maintaining a sales outlet for twenty-four (24) hours a day, as well as other provisions to which the proposed prepaid metering system and its implementation may be inconsistent with;
43. Under the Prepaid Metering Rules, the Commission may allow an exception from any provision of the said Rules where good reason appears and if such exception is in the public interest and is not contrary to law, rules and regulations;
44. For the reasons extensively discussed above, they move for an exception from the provisions of the said Rules, particularly Section 2.6 on the application of the rate at the time of credit purchase, Section 2.7 on the requirement of a written confirmation of credit purchase, and Section 2.8 on maintaining a sales outlet for twenty-four (24) hours a day, as well as other provisions to which the proposed prepaid metering system and its implementation may be inconsistent with;
45. Parenthetically, XESI manifests that it has instituted a pending petition to initiate rule-making under Section 21 of the *ERC's Rules of Practice and Procedure*, the cause of action thereof being to effect amendments to the Prepaid Metering Rules, including the provisions abovementioned;

**ALLEGATIONS IN SUPPORT OF THE PRAYER  
FOR PROVISIONAL AUTHORITY**

46. They seek to offer and provide the Prepaid Metering System at the earliest possible time in order to provide BOHECO II's customers with an effective, convenient and affordable means of managing their energy consumption;
47. 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 II 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;
48. 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;
49. 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 II's customers at the soonest possible time; and
50. They pray that the Commission immediately issue an Order granting provisional approval of the present
48. 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;
49. 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 II's customers at the soonest possible time; and
50. They pray that the Commission 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 they can already implement the proposed Prepaid Metering System, and after due hearing, render a Decision making such provisional approval permanent.

XESI and BOHECO II were directed to cause the publication of the Notice of Public Hearing, at their own expense, once (1x) in a newspaper of general circulation in the Philippines, at least ten (10) days before the scheduled date of initial hearing. They were also directed to inform BOHECO II's customers within its franchise area, by any other means available and appropriate, of the filing of the instant application, their reasons therefor and of the scheduled hearing thereon.

The Office of the Solicitor General (OSG), the Commission on Audit (COA) and the Committees on Energy of both Houses of Congress were furnished with copies of the Order and Notice of Public Hearing and were requested to have their respective duly authorized representatives present at the aforesaid initial hearing.

Likewise, the Offices of the Governor and Mayors of the Municipalities within the franchise area of BOHECO II were furnished with copies of the Order and the Notice of Public Hearing for the appropriate posting thereof on their respective bulletin boards.

On March 23, 2012, XESI and BOHECO II filed their "*Joint Pre-Trial Brief*".

During the March 29, 2012 initial hearing, only XESI and BOHECO II appeared. No intervenor/oppositor appeared nor was there any intervention/opposition registered.

At the said hearing, XESI and BOHECO I presented proofs of their compliance with the Commission's posting and publication of notice requirements which were duly marked as Exhibits "D" to "I", inclusive. Thereafter, they conducted an expository presentation of with copies of the Order and the Notice of Public Hearing for the appropriate posting thereof on their respective bulletin boards.

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At the said hearing, XESI and BOHECO I presented proofs of their compliance with the Commission's posting and publication of notice requirements which were duly marked as Exhibits "D" to "I", inclusive. Thereafter, they conducted an expository presentation of their application.

At the termination of the expository presentation, XESI and BOHECO II presented the following witnesses: 1) Mr. Ariel R. Dela Cruz, XESI's President, who testified, among others, on the following: a) his duties and functions; b) his participation in the preparation of the instant application; c) the description of the kind of business that XESI is engaged in; d) its metering system as being compliant with



(CSPUD), who testified, among others, on the following: a) his duties and responsibilities; b) the reasons why BOHECO II would want to provide prepaid retail electric service to its consumers; c) advantages and features of the prepaid metering system; d) how will consumers avail of the said prepaid metering services; e) the terms and conditions of the said service; and f) how much will it cost for a consumer to acquire a prepaid metering system.

In the course of their direct examinations, additional documents were presented and duly marked as exhibits. The direct examinations having been terminated, the Commission propounded clarificatory questions on the said witnesses and directed XESI and BOHECO II to file their formal offer of evidences.

On May 15, 2012, XESI and BOHECO II submitted their "*Joint Formal Offer of Evidence*".

On May 16, 2012, the Commission issued an Order setting the case for clarificatory hearing on June 5, 2012.

On June 1, 2012, XESI and BOHECO II filed their "*Joint Compliance with Manifestation (Re: Order dated May 16, 2012)*".

During the June 5, 2012 hearing, XESI and BOHECO II appeared. At the said hearing, XESI's and BOHECO II's witnesses were recalled and addressed the questions propounded by the Commission.

On June 15, 2012 and June 18, 2012, XESI filed its "Supplemental Formal Offer of Evidence" and "*Manifestation (Re: In-*

On May 16, 2012, the Commission issued an Order setting the case for clarificatory hearing on June 5, 2012.

On June 1, 2012, XESI and BOHECO II filed their "*Joint Compliance with Manifestation (Re: Order dated May 16, 2012)*".

During the June 5, 2012 hearing, XESI and BOHECO II appeared. At the said hearing, XESI's and BOHECO II's witnesses were recalled and addressed the questions propounded by the Commission.

On June 15, 2012 and June 18, 2012, XESI filed its "Supplemental Formal Offer of Evidence" and "*Manifestation (Re: In-Home Displays and Prepaid Credit As A Payment Facility)*", respectively.

On June 20, 2012, BOHECO II filed a "*Manifestation (Re: Implementation of Prepaid Metering Services)*".

On June 25, 2012, BOHECO II filed a "*Manifestation (In-House*

On March 15, 2013, the Commission issued an Order admitting CSCI's "Formal Offer of Evidence" and declaring the case submitted for resolution.

## DISCUSSION

Pursuant to Section 43 (h) of Republic Act No. 9136 and Section 4 (o), Rules 3 of its Implementing Rules and Regulations (IRR), the Commission had adopted and promulgated the Rules for Prepaid Retail Electric Service Using a Prepaid Metering System.

Under the said Rules, the Commission believes that the introduction of the PMS in the distribution services of the DU will give the latter the opportunity to enhance its operational efficiency and at the same time provide the customers opportunity to manage their energy consumption, thus, promoting demand side management on the part of the DU and the customer.

Under the said PRES, a customer, will have the option to apply for a PRES on a voluntary basis and once allowed he may avail on a trial basis for a period of six (6) months thereby giving him the opportunity to assess the impact of using the prepaid service subject to a retention period of twenty-four (24) months. However, a customer may revert back to being a postpaid customer.

### **The Prepaid Metering System (PMS)**

Under the PMS, XESI shall be responsible for the distribution of the prepaid loads (in one hundred peso [PhP100] increments). The prepaid load already incorporates the nominal fee to cover the costs of the distribution and the management of the PMS by XESI.

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The rate to be applied in the prepaid transaction is the current postpaid retail rate and is inputted by BOHECO II in XESI's PMS through the online interface available at BOHECO II's end.

### **Technical specifications of PMS**

The Commission noted some of the technical specifications of the PMS, among them are:

- 1) PMS records all purchases (peso value of the credited load) and monitors the energy consumption of each customer through the meter installed at the customers' respective premises;
- 2) PMS can store at least a two-year data in its system; and
- 3) PMS can be deployed to several servers to ensure the reliability of the service and back up the data.

Although the PMS is programmed to operate with Libra meters, XESI should undertake to ensure compliance with the interoperability requirement. The system must be capable of adjustment or reconfiguration, when necessary, in order to interoperate with other brands of meters or integrate with other systems.

The reconfiguration should be at no cost to the BOHECO II and the users.

Considering that the PRES-PMS is newly implemented by the DUs, particularly BOHECO II, XESI should also undertake to ensure that there should be an audit and accountability mechanism in the

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Considering that the PRES-PMS is newly implemented by the DUs, particularly BOHECO II, XESI should also undertake to ensure that there should be an audit and accountability mechanism in the system to ensure the integrity of the trail of information from the point of sale to the point of computing the charges for the customer's energy consumption.

### **Ownership, Management and Cost recovery of the PMS**

### **Type of Meters Used**

The Commission noted that XESI will supply BOHECO II with Libra (Wasion brand) meter product, an advance type of meter product that can be used in an "on-line" type of a prepaid technology which it approved for use in revenue metering *under* Certificate of Approval No. 0021-12 dated May 28, 2012.

The Libra meters will be installed in the premises of the customers who opted to avail the PRES-PMS.

The said meters will interact remotely with the meter management and vending system owned and operated by XESI and can be programmed to automatically disconnect power by the resetting of the accumulated kWh to zero.

Considering that the cost of the prepaid meters constitutes capital cost on the part of BOHECO II, this cost shall be recovered in the same manner as other capital costs, subject to the filing of the appropriate applications of BOHECO II with the Commission.

### **Low credit warning and non-interruption of electric service**

Under the PMS of XESI, a customer may opt to receive low credit alert via SMS once his credit drops to fifty pesos (PhP50.00) and below. Moreover, meters installed outside the houses of prepaid customers will be programmed to give warnings or flash red lights once the remaining credit reaches fifty pesos (PhP50.00) and below.

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The Commission deems, that in the meantime that since there is no provision in the Rules for emergency credit, XESI should undertake to program the PMS in such a way that it will not interrupt the electric service of customers who run out of credit during hours when retailers and the offices and payment centers of BOHECO II are closed.

## The Implementation of the PRES

With the inception and implementation of the PRES in the distribution service of BOHECO II, the Commission exempts it from complying the following requirements of the Magna Carta for Electricity Consumers:

- a) Right to transparent billing;
- b) Right to a monthly electricity bill;
- c) Right to due process prior to disconnection;
- d) Right to a notice prior to disconnection;
- e) Right to suspension of disconnection; and
- f) Right to tender payment at the point of disconnection.

Although XESI and BOHECO II have already undertaken the pilot project implementing the PRES, the Commission has yet to see the impact of the project in the distribution system and services of BOHECO II as well as the necessity, acceptability and viability using a large number of customers who avails of the PRES.

Further, Commission is cognizant of the fact that the advent of technology and introduction of the PRES-PMS in the distribution service of BOHECO II will necessitate adoption of strategic measures to improve its system and operational efficiency as well as provide its electricity consumers greater opportunity for demand side management on their energy consumptions.

**WHEREFORE**, the foregoing premises considered, the application filed on December 20, 2011 by Xen Energy Systems, Inc. pilot project implementing the PRES, the Commission has yet to see the impact of the project in the distribution system and services of BOHECO II as well as the necessity, acceptability and viability using a large number of customers who avails of the PRES.

Further, Commission is cognizant of the fact that the advent of technology and introduction of the PRES-PMS in the distribution service of BOHECO II will necessitate adoption of strategic measures to improve its system and operational efficiency as well as provide its electricity consumers greater opportunity for demand side management on their energy consumptions.

**WHEREFORE**, the foregoing premises considered, the application filed on December 20, 2011 by Xen Energy Systems, Inc. (XESI) and Bohol II Electric Cooperative, Inc. (BOHECO II), for approval of their Proposed Prepaid Metering System (PMS) and for authority to provide Prepaid Retail Electric Service, with prayer for provisional authority, is hereby **APPROVED**, subject to the following:

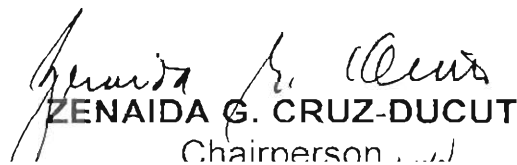
- 1) Implement the PRES for a period of three (3) years;

- load purchase by a prepaid customer for the duration of the implementation of the PRES; and
- b) a monthly report of all customer complaints regarding the prepaid service during the period, if any;
3. kWh meters used in PRES be tested and sealed by the Commission prior to their installation in service; and
4. Comply with reportorial requirements of Article VI of the Rules for Prepaid Retail Electric Service Using a Prepaid Metering System, as amended.

Further, XESI and BOHECO II are hereby directed to modify their PMS to comply and conform to the existing provisions of the "Rules for Prepaid Retail Electric Service Using a Prepaid Metering System, as amended" as one of the conditions for the issuance of the final approval following an automatic review by the Commission of the same before the expiration of aforementioned period of implementation.

**SO ORDERED.**

Pasig City, March 18, 2013.

  
**ZENAIDA G. CRUZ-DUCUT**  
Chairperson

their PMS to comply and conform to the existing provisions of the "Rules for Prepaid Retail Electric Service Using a Prepaid Metering System, as amended" as one of the conditions for the issuance of the final approval following an automatic review by the Commission of the same before the expiration of aforementioned period of implementation.

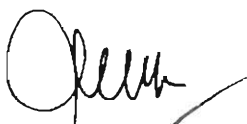
**SO ORDERED.**

Pasig City, March 18, 2013.

  
**ZENAIDA G. CRUZ-DUCUT**  
Chairperson

(On Leave)  
**MARIA TERESA A. R. CASTAÑEDA**  
Commissioner

  
**JOSE C. REYES**  
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