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

IN THE MATTER OF THE APPLICATION FOR APPROVAL OF PROPOSED ELECTRIC CAPITAL PROJECTS FOR THE YEAR 2009 to 2013 AND AUTHORITY TO SECURE LOAN FROM NEA, WITH PRAYER FOR PROVISIONAL AUTHORITY

ERC CASE NO. 2010-012 RC

FIRST BUKIDNON ELECTRIC COOPERATIVE, INC. (FIBECO),
Applicant.
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A P P L I C A T I O N

COMES NOW, applicant **First Bukidnon Electric Cooperative, Inc. (FIBECO)**, by and through the undersigned counsel, and unto this Honorable Commission most respectfully states:

1. That applicant is an electric cooperative duly organized and existing under and by virtue of the laws of the Philippines, with the principal office at Anahawon, Maramag, Bukidnon where it may be served with summons and other legal processes, represented in this instance by its Officer In-Charge, **ENGR. RENATO S. CORTEZANO** of legal age, Filipino, married and with office address also at Poblacion, Valencia City.

2. Herein applicant is the exclusive franchise holder issued by the National Electrification Administration (NEA) to operate an electric light and power services in the (13) municipalities, namely the municipalities of Valencia (now a city), San Fernando, Maramag, Quezon, Don Carlos, Kitaotao, Dangcagan, Kibawe, Damulog, Kadingilan, Pangantucan Kalilangan and Wao, all in the

Province of Bukidnon, except one (1), which is located within the Province of Lanao del Sur;

3. That the applicant FIBECO consumer profile showed that almost 88% of the consumers are residential, 8 % is commercial and the rest are industrial, public buildings and street lights;

4. That the applicant FIBECO's energy demand reached approximately 107 GWhr at the end of 2008 and forecast estimates indicate that the applicant will have a steady energy demand growth rate of 7.2% every year until 2013. It is expected that the energy demand will reach as high as 142 GWhr at the end of five years;

5. That FIBECO gets the bulk of power for distribution to its coverage area through the transmission system facilities operated and maintained by the National Grid Corporation of the Philippines (NGCP) which derived its power from Hydro-Power Plants in the Agus River in Lanao Provinces and Pulangui River in Bukidnon;

6. That it have identified fifteen (15) projects, classified according to the projects that intends to address load growth, projects that intends to improve systems reliability and efficiency, and projects that intends to reduce losses in transformers and feeders. The following are the proposed projects for implementation upon economic and financial feasibility:

A. <u>Projects that intends to address load growth:</u>

(1) Installation of 10-MVA substation at Anahawon, Maramag, Bukidnon;
(2) Installation of 10-MVA substation at Camp 1, Maramag, Bukidnon;
(3) Installation of 5-MVA substation at Barandias, Pangantucan, Bukidnon;
(4) Construction of 69 KV Sub-transmission line in Maramag-Barandias; and
(5) Acquisition of Sub-transmission Assets.

B. <u>Projects that intends to improve system reliability and efficiency:</u>

(1) Procurement of SCADA and Monitoring System;
(2) Procurement of Hotline Tools and Equipment; and
(3) Procurement of Logistics Tools and Equipment.

C. <u>Projects that intends to reduce system losses:</u>

(1) Construction of 4/0 parallel 3 phase line from Camp 1 to Puntian, Quezon;
(2) Construction of 4/0 parallel 3 phase line from Lumbo to Dabong-dabong Valencia City;
(3) Construction of 2/0 parallel 3 phase line from Dabong-dabong to San Fernando;
(4) Conversion of V phase to 3 phase 2/0 Arfi-Paitan;
(5) Conversion of V phase to 3 phase 2/0 Bagonta-as-Lurugan;
(6) Acquisition of Kwhr meters; and
(7) Replacement of dilapidated distribution transformer.

7. That as part of its Distribution Development Plan, applicant FIBECO intends to apply for approval of the following electric projects for 2009-2013:

Proposed Electric Capital projects for year 2009-2013

	Year						
	Project Description	**2009**	**2010**	**2011**	**2012**	**2013**	Project Cost
1	Installation of 10 MVA Substation	**46,000,000.00**					**46,000,000.00**
2	Installation of 10 MVA Substation	**46,000,000.00**					**46,000,000.00**
3	Construction of 4/0 Tie line	**8,994,695.11**					**8,994,695.11**
4	Construction of 4/0 Tie line	**18,342,140.71**					**18,342,140.71**
5	Construction of 69 KV Line		**105,540,000.00**				**105,540,000.00**
6	Construction of 2/0 parallel Line	**24,981,379.87**					**24,981,379.87**
7	Installation of 5 MVA Substation		**10,000,000.00**				**10,000,000.00**
8	Procurement of Hotline Tools		**16,000,000.00**				**16,000,000.00**
9	Procurement of Logistics	**40,600,000.00**	**7,500,000.00**	**7,500,000.00**	**7,500,000.00**	**7,500,000.00**	**70,600,000.00**
10	Procurement of SCADA Systems	**42,000,000.00**					**42,000,000.00**
11	Conversion of V phase to 3 phase				**934,031.67**		**934,031.67**
12	Conversion of V phase to 3 phase				**1,940,807.59**		**1,940,807.59**
13	Acquisition of 69 KV Line	**30,000,000.00**					**30,000,000.00**
14	Kwhr Meters	**18,000,000.00**	**18,000,000.00**	**18,000,000.00**	**18,000,000.00**	**18,000,000.00**	**90,000,000.00**
15	Replacement of Delapidated DX Xformer	**16,812,500.00**	**16,812,500.00**	**16,812,500.00**	**16,812,500.00**	**16,812,500.00**	**84,062,500.00**
	GRAND TOTAL	**291,730,715.69**	**173,852,500.00**	**42,312,500.00**	**45,187,339.26**	**42,312,500.00**	**595,395,554.95**

8. That the above project will be implemented on a staggered basis starting 2009 to 2013 and financing of the said projects will be taken from NEA loan and the Applicant's Reinvestment Fund;

9. That the Applicant will request to secure a PhP 595,395,554.95 loan from National Electrification Administration (NEA);

10. That the proposed projects are consistent with the Distribution Development Plan (DDP), the Philippine Grid Code (PGC) and other relevant government issuances; and in accordance with ERC Resolution on capital projects;

11. For purposes of and in connection with this application, FIBECO attach/submit the following documents in compliance with the requirements pertinent hereto:

    a. Description of the Project; Justification and Impact study on the System and; Options/Alternatives considered in lieu of the proposed project;
    b. Project Financing Plan
    c. Five-year Historical and Forecast planning Data consistent with DDP
    d. Technical Analysis
    e. Project Financial and Economic Cost Analysis
    f. Project Cost Estimates
    g. Proposed Gantt Chart Schedule
    h. Single Line Diagram;
    i. Conceptual Engineering Design and Drawings
    j. Board Resolution approving the proposed projects
    k. Sworn Statement
    l. Compliance with the pre-filing requirements:

        1. Certification from the Presiding Officer or Secretary of the Legislative bodies of the Franchise Area and of the Sangguniang Panlalawigan of Bukidnon, or their duly authorized representatives attesting to the fact that applicant has furnished the respective legislative bodies of the local government units within the

Franchise Area and the Sangguniang Panlalawigan; and

2. Affidavit of Publication and Newspaper issue containing the published Application in its entirety in a newspaper of general circulation in FIBECO's franchise area.

12. That the approval of the proposed capital expenditure projects is needed to maintain efficient, reliable, and safety delivery of power to FIBECO's existing and future consumers, and will redound to the benefits of the consuming public.

P R A Y E R

WHEREFORE, premises considered, it is respectfully prayed of this Honorable Commission that pending hearing, the herein submitted application for approval of proposed electric capital projects and authority to secure loan from the National Electrification Administration be provisionally approved *ex parte*; and the applicant be authorized to adopt and implement the same effective upon such approval and after due notice and hearing and consideration, the application be approved permanently.

Other reliefs just and equitable under the premises are likewise prayed for.

Cainta, Rizal for Pasig City, Metro Manila, Philippines, **November 10, 2009.**

ARNIDO O. INUMERABLE
Counsel for the Applicant
405 Elisa Street, U.E Village, Cainta, Rizal
PTR No. 1173020, 1-5-09, Q.C
IBP No. 769143, 1-6-09, Pasig
Roll of Attorneys No. 28764
MCLE Compliance II-0015415, 1-8-09

Republic of the Philippines)
Maramag, Bukidnon) Ss.

VERIFICATION AND CERTIFICATION
OF NON FORUM-SHOPPING

I, **ENGR. RENATO S. CORTEZANO** of legal age, Filipino and with office address at the Main Office of First Bukidnon Electric Cooperative, Inc. (FIBECO), Anahawon, Maramag, Bukidnon, after being sworn to according to law, depose and says that:

1. That I am the Officer In-Charge of **First Bukidnon Electric Cooperative, Inc. (FIBECO)** duly authorized to represent the cooperative in the filing of the Application for Approval of Proposed Electric Capital Projects for the Year 2009 -2013 and Authority to Secure Loan from NEA with Prayer for Provisional Authority;

2. That I have caused the preparation and filing of the foregoing Application;

3. That I have read and know the content thereof as true and correct to the best of my own knowledge based on authentic documents;

4. That I hereby certify that I have not therefore commence by any other action or proceeding involving the same in the Supreme Court, the Court of Appeals or any other tribunal or agency;

5. That to the best of my knowledge, no such action or proceeding is pending in the Supreme Court, the Court of Appeals or any other tribunal or agency;

6. That if there is such action or proceedings which is either pending or may have been terminated, I must state the status thereof;

7. That I should thereafter learn that similar action or proceedings has been filed or pending before the Supreme Court, the Court of Appeals or any other tribunal or agency, we will undertake to report that fact within five (5) days there from to the Court or Agency wherein the original pleading has been filed;

IN WITNESS WHEREOF, I have hereunto set my hand this **11th** day of **February, 2010** at **Maramag, Bukidnon**.

ENGR. RENATO S. CORTEZANO
Affiant

SUBSCRIBED AND SWORN to before me in **Maramag, Bukidnon,** this **11th** day of **February, 2010** by the affiant **ENGR. RENATO S. CORTEZANO** who exhibited to me his **CTC 18594645** issued on **January 07, 2010** issued at **Lumbo, Valencia City.**

Notary Public

Doc. No. _____;
Page No. _____;
Book No. _____;
Series of 2010.

EXECUTIVE SUMMARY

First Bukidnon Electric Cooperative, Inc., (FIBECO), an electric cooperative, formed in accordance with the provisions of PD 269 under the National Electrification of Administration (NEA), started its application for CAPITAL EXPENDITURES by creating the Technical Working Group (TWG), who are tasked to prepare the application for CAPITAL EXPENDITURES for the period 2009 to 2013, in accordance with the rules as promulgated by ERC under Resolution No. 18, series of 2008.

FIBECO sourced its power from the grid and served its customers through five (5) substations: the 5-MVA Camp 1 substation distributing power to two distribution feeders; the 10-MVA Lumbo substation supplying three distribution feeders; the 5-MVA substation at Anahawon with three distribution feeders; 5-MVA Palma substation with three distribution feeders and the 10-MVA Dabongdabong substation serving two distribution feeders.

Detailed forecast were done for all of the thirteen (13) feeders served by the five substations of the electric cooperative for the five-year planning period beginning 2009 and ending 2013. In compliance with the rules for preparation of capital expenditure projects, historical data comprising of actual peak and energy demand data are all provided in the application. Power demand and energy forecast were done using the best available forecasting software; the TWG sets a standard of less than three percent (<5%) of Mean Absolute Prediction Error (MAPE) for the forecast to be accepted.

Forecast results suggest that the electric cooperative shall experience substantial load growth over the planning period. It is expected that from a base energy sales of approximately 107 GWhr, energy sales will reach as high as 142 GWhr in 2013, or an annual average increase of 7.2%. Also, a 3.5% annual growth in peak demand will be expected annually. The load growth will not create an impact on the capacity of the substations but will affect systems efficiency and reliability, as technical losses is expected to increase and voltage quality of the power delivered will deteriorate as the demand increase.

In order to determine feasible technical solution to possible problem associated with the projected load growth, the TWG modeled the whole of the distribution system under the base case scenario; starting with actual 2008 peak demand data, and simulating the model for the period 2009 to 2013 using estimated forecast results for those periods. Results of the power flow simulation are analyzed and the corresponding problems identified in order to come up with the best engineering solution as well as alternative solutions, if possible. In doing the technical analyses, the TWG uses several power systems analyses software, to do the analyses and simulation.

For each of the problems identified, a number of possible engineering solutions are integrated into the base case model; simulation results are then

analyzed to come up with the best technically acceptable project as well as alternative solutions, if necessary. For detailed discussions on the identification of these projects please see the chapter on technical solutions and identification of optimum projects in the application.

Technical analysis conducted using the forecast demand projections suggest a number of proposed projects intended to support load growth, reduce system's technical loss and improve system's efficiency and reliability. The Technical Working Group (TWG) have proposed (15) projects, classified according to projects that intends to address load growth, projects that intends to improve systems reliability and efficiency, and projects that intends to reduce losses in transformers and for improved Transformer Management system. The following are the projects proposed for implementation after economic and financial evaluation:

A. For projects intended to reduce systems loss:
   (1) Construction of 4/0 parallel 3 phase line from Camp 1 to Puntian, Quezon;
   (2) Construction of 4/0 parallel 3 phase line from Lumbo to Dabong-dabong, Valencia City;
   (3) Construction of 2/0 parallel 3 phase line from Dabongdabong to San Fernando;
   (4) Conversion of V phase to 3 phase 2/0 Arfi to Paitan; and
   (5) Conversion of V phase to 3 phase 2/0 Bagontaas-Lurugan.
   (6) Acquisition of kWhr meters
   (7) Replacement of Dilapidated Distribution Transformers

B. For projects intended to address load growth
   (1) Installation of 10 MVA Substation at Anahawon, Maramag;
   (2) Installation of 10 MVA at Camp 1 Substation ;
   (3) Installation of 5 MVA Substation at Barandias, Pangantucan;
   (4) Construction of 69 KV Sub-transmission line Maramag-Barandias; and
   (5) Acquisition of Subtransmission Assets.

C. For projects intended to improve systems Reliability and Efficiency
   (1) Procurement of SCADA and Monitoring System;
   (2) Procurement of Hotline Tools and Equipment; and
   (3) Procurement of Logistics Tools and Equipment.

Cost estimates of each of these projects identified are made and the corresponding economic and financial analysis conducted. Cost estimates for some of these projects were taken from the 2008 NEA price index; prices of other projects and special equipment are based on current bidding/canvass conducted by the electric cooperative.

In summary, based on the results of the economic and financial analysis conducted, the following are the proposed Capital Expenditure projects for the period 2009 to 2013:

	Project Description	PROJECT COST	Source of Fund
1	Installation of 10 MVA Substation	**46,000,000.00**	**NEA**
2	Installation of 10 MVA Substation	**46,000,000.00**	**NEA**
3	Construction of 4/0 Tie line	**8,994,695.11**	**NEA**
4	Construction of 4/0 Tie line	**18,342,140.71**	**NEA**
5	Construction of 69 KV Line	**105,540,000.00**	**NEA**
6	Construction of 2/0 parallel Line	**24,981,379.87**	**NEA**
7	Installation of 5 MVA Substation	**10,000,000.00**	**NEA**
8	Procurement of Hotline Tools	**16,000,000.00**	**NEA**
9	Procurement of Logistics	**70,600,000.00**	**NEA**
10	Procurement of SCADA Systems	**42,000,000.00**	**NEA**
11	Conversion of V phase to 3 phase	**934,031.67**	**NEA**
12	Conversion of V phase to 3 phase	**1,940,807.59**	**NEA**
13	Acquisition of 69 KV Line	**30,000,000.00**	**NEA**
14	Procurement of Kwhr Meters	**90,000,000.00**	**NEA**
15	RepLacement of Delapidated DX Xformer	**84,062,500.00**	**NEA**
GRAND TOTAL		**595,395,554.95**	

In accordance with the rules for application of capital expenditure projects, each of the proposed projects is rank according to its priority, and the driver for the project mentioned, the classification whether it is for load growth, renewal, refurbishment, renewal or replacement or for purposes of rural electrification emphasized.

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