

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



IN THE MATTER OF THE
APPLICATION FOR THE APPROVAL
OF EMERGENCY CAPITAL
PROJECTS – RE: EMERGENCY
CONSTRUCTION OF 10 MVA
POWER SUBSTATION AT
BALAMBAN, CEBU, AND THE
CONSTRUCTION OF 69 KV
SUBTRANSMISSION LINE AND 13.2
DOUBLE CIRCUIT DISTRIBUTION
LINES AND ACQUISITION OF
LOGISTICAL SUPPORT EQUIPMENT

ERC CASE NO. 2009-007 MC

CEBU III ELECTRIC COOPERATIVE,
INC. (CEBECO III),

Applicant.

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D O C K E T E D

Date: JUL 27 2009

By: [Signature]

DECISION

Before this Commission for resolution is the application filed on January 27, 2009 by Cebu III Electric Cooperative, Inc. (CEBECO III) for the approval of its emergency capital projects — re: emergency construction of 10 MVA power substation at Balamban, Cebu and the construction of 69 kV subtransmission line and 13.2 kV double circuit distribution lines and acquisition of logistical support equipment.

Having found said application sufficient in form and in substance with the required fees having been paid, an Order and a Notice of Public Hearing, both dated February 9, 2009, were issued setting the case for initial hearing on April 2, 2009.

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In the same Order, CEBECO III was directed to cause the publication of the Notice of Public Hearing, at its own expense, once (1x) in a newspaper of general circulation in the Philippines, not later than ten (10) days before the scheduled date of initial hearing. It was also directed to inform the consumers, within its franchise area, by any other means available and appropriate, of the filing of the instant application, its 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 the Notice of Public Hearing and were requested to have their respective duly authorized representatives present at the initial hearing.

Likewise, the Offices of the Mayors of the City and Municipalities within CEBECO III's franchise area were furnished copies of the Order and Notice of Public Hearing for the appropriate posting thereof on their respective bulletin boards.

On March 25, 2009, CEBECO III filed its "*Compliance of Jurisdictional Requirements*" and "*Pre-trial Brief*".

During the April 2, 2009 initial hearing of this case, only CEBECO III appeared. No intervenor/oppositor appeared nor was there any intervention/opposition registered.



At the said hearing, CEBECO III presented its proofs of compliance with the Commission's posting and publication of notice requirements which were duly marked as Exhibits "A" to "S", inclusive. Thereafter, it conducted an expository presentation of its application.

At the termination of the expository presentation, CEBECO III presented the following witnesses: 1) Engr. Williard Sayson, its Assistant General Manager, who testified, among others, that the projects were necessary and urgent and that the procedure of the procurement had been faithfully observed; and 2) Mr. Rolando L. Vicente, its Finance Manager, who testified, among others, that the funds and the loan portfolio were obtained from the National Electrification Administration (NEA).

In the course of their direct examinations, various 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 CEBECO III to submit various documents.

On April 21, 2009, CEBECO III filed its "*Formal Offer of Evidence*" which is hereby admitted for being relevant and material in the final resolution of the case.

On May 9, 2009, CEBECO III filed its "*Compliance*".

The bottom of the page contains several handwritten signatures and initials. From left to right, there is a large, stylized signature, followed by a smaller signature, a set of initials, another signature, and a final signature on the far right.

DISCUSSION

CEBECO III sought the Commission's approval of the following projects:

1. Construction of One (1) 10 MVA Power Substation

a. Project Description:

- Construction of one (1) 10 MVA substation with the corresponding 69 kV lines and 13.2 kV distribution feeders in Balamban, Cebu

b. Rationale of the Project:

- To provide adequate substation capacity for the increasing energy requirement of the system

c. Project Cost:

PhP33,399,049.00

2. Procurement of Various Logistical Support

a. Project Description:

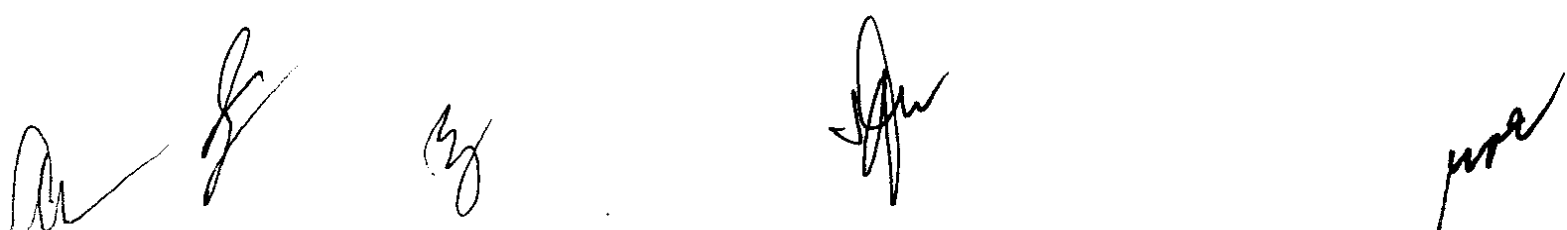
- Procurement of various logistical support equipment and tools such as thermal scanner, ammeter, load logger, service vehicles and utility boom trucks

b. Rationale of the Project:

- To increase operational efficiency
- To replace antiquated tools and equipment

c. Project Cost:

PhP7,473,104.00



Thus, the total project cost is as follows:

DESCRIPTION	COST(PhP)
Construction of One (1) 10 MVA Power Substation	33,399,049.00
Procurement of Various Logistical Support	7,473,104.00
TOTAL	PhP40,872,153.00

COST ANALYSIS

The capital investment for the projects amounted to Forty Million Eight Hundred Seventy-Two Thousand One Hundred Fifty-Three Pesos (**PhP40,872,153.00**). CEBECO III received project proposals from two (2) suppliers/contractors for the supply and installation of the 10 MVA power substation and its accessories. It also conducted bidding for the supply of logistical support equipment with several suppliers. The table below summarizes the tender submitted by the considered bidders:

ITEM DESCRIPTION	ASIAPHIL	FIRST PHILEC	
Supply and installation of one (1) 10MVA transformer	29,955,217.00*	29,955,997.00	
	ACCESS FRONTIER	RS COMPONENTS	GENESIS INDUSTRIAL
CT Burden Ammeter	109,760.00*	110,050.00	110,075.00
	PASAJERO MOTORS	KIA MOTORS	CEBU TITAN
Service Vehicle	854,000.00*	890,000.00	895,000.00
	PASAJERO MOTORS	AJL AUTO SUPPLY	CEBU TITAN
Boom truck	850,000.00*	870,000.00	880,000.00

* Winning price proposals considered by CEBECO III

The supply of labor and materials for the construction of the 69 kV lines and 13.2 kV double circuit distribution feeders amounted to Three Million Four Hundred Forty-Three Thousand Eight Hundred Thirty-Two Pesos **(PhP3,443,832.00)**. Materials were sourced from accredited suppliers while the labor component for the construction of the said lines was done by CEBECO III. The market price of the materials and other items used in the completed projects were determined after a competitive bidding.

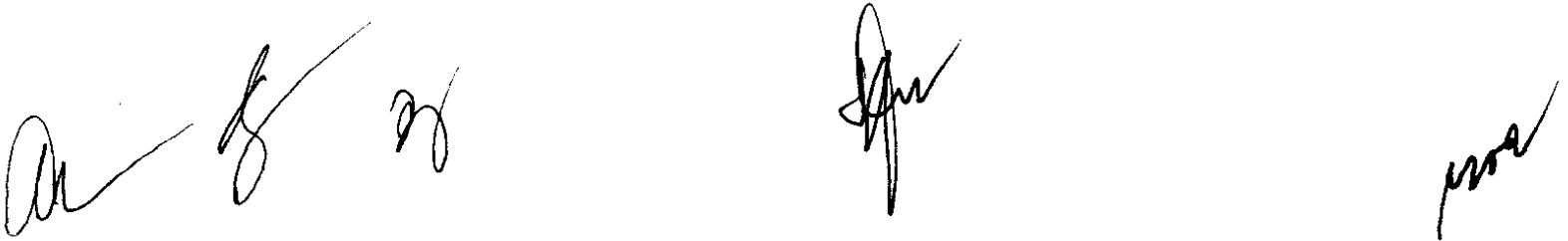
The bulk of the capital expenditure was attributed to the procurement of materials used in the construction of the power substation, 69 kV equipment, support structures and line hardware. The right-of-way was not much of an issue since the lines were constructed on a national highway and was cleared by the Department of Public Works and Highways (DPWH).

The submitted projects for approval were financed through a project financing loan from NEA payable for a period of ten (10) years with an interest rate of ten percent (10%) per annum and a monthly amortization of about PhP453,000.00.

TECHNICAL ANALYSIS

Construction of One (1) 10 MVA BALAMBAN Substation

The 10 MVA Balamban Substation and the corresponding 69 kV lines and 13.2 kV double circuit distribution lines were constructed to serve the Residential and Medium Sized Commercial customers in the Municipality of Balamban and neighboring barangays. The Municipality and its barangays were being served



by the existing 25 MVA power transformer owned by the Cebu Industrial Park Developers, Inc. (CIPDI).

The letter/notice of service termination of Balamban Enerzone Corporation (BEC) to CEBECO III dated November 16, 2007 has necessitated the urgent implementation of these projects in order to curtail the interruption of the power distribution services in the affected areas. The approval by the Philippine Export Zone Authority (PEZA) solely authorizing BEC to be the power distributor within the CIPDI area, (declared as PEZA registered industrial zone), required it to terminate its services to CEBECO III so it can adequately serve and provide all its existing power substation capacity to the expanding needs of the locators within CIPDI area.

The 10 MVA power substation of CEBECO III located in Toledo City is already loaded at a critical level of about 85% during peak period. This means that it can no longer handle the additional load from the CIPDI customers and any inevitable increase in energy demand. Thus, it is imperative that a new 10 MVA power substation be constructed to address this concern.

The construction of the Balamban 10 MVA substation was completed in four (4) months (January 2008 – April 2008) including the connection of the 69 kV sub-transmission lines and the outgoing 13.2 kV double circuit distribution feeders. The completion and commissioning of the new substation happened before the termination of the service contract with BEC which was on April 30, 2008.



The table below shows the forecasted loading of the 10 MVA Balamban Substation in megavolt-amperes (MVA):

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Load (MVA)	4.50	4.85	5.30	6.10	6.75	7.50	8.00	8.25	8.65	9.00
% loading	45.0	48.5	53.0	61.0	67.5	75.0	80.0	82.5	86.5	90.0

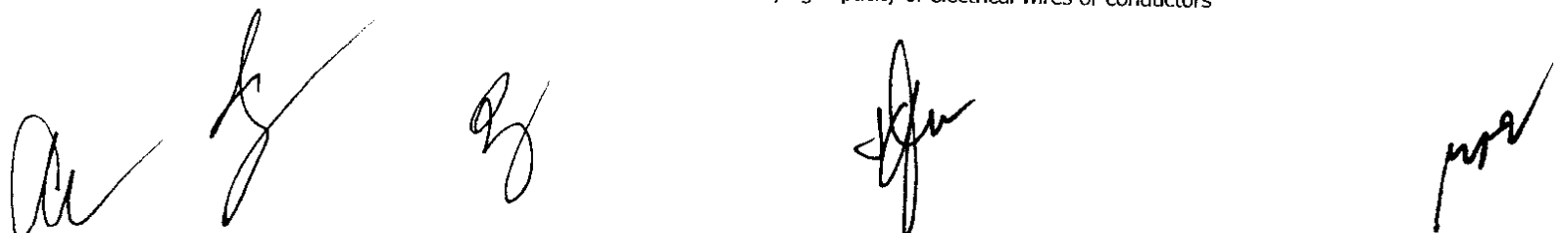
PROJECT DESIGN

69 KV SUB-TRANSMISSION LINE

The 69 kV 3-phase subtransmission lines that connected the power substation to the grid utilized a single conductor per phase configuration with one (1) overhead grounding wire, supported by concrete and wooden poles. The type of conductor used for the 69 kV lines was the bare #336.4 Aluminum Conductor Steel Reinforced (ACSR) cable with a specific code "Linnet". The conductor's *ampacity*¹ of about 530 amperes with an estimated loading capacity of about 64 MVA, is sufficient to handle the forecasted energy requirements for the next twenty (20) years.

The steel supporting structures, pole dressing and assemblies used for the 69 kV line have complied with the standards set by the NEA's Engineering Bulletin and the Philippine Electrical Code (PEC).

¹ Electrical Engineering term referring to the current-carrying capacity of electrical wires or conductors



POWER SUBSTATION

The power substation is an outdoor simple radial type configuration with one (1) incoming primary feeder on a single step-down power transformer and a secondary section available for three or more outgoing feeders. Investment for this type of configuration is the lowest of all circuit arrangements and the operation and system expansion is simple.

The power substation was designed to carry continuously CEBECO III's system power flow requirement for at least ten (10) years. The substation and its components, such as short-circuit and fault protection, system control and metering, cabling and grounding system, conform to the applicable and widely-recognized international design standards of the Institute of Electrical and Electronics Engineers (IEEE), the American National Standards Institute (ANSI), the Philippine Electrical Code (PEC) and the NEA Engineering Bulletins. The completed system is also compliant with the Philippine Grid Code (PGC) and Philippine Distribution Code (PDC).

The substation is located within the load center of CEBECO III's coverage area and is in close proximity to the national road. The location is ideal in terms of equipment transport accessibility. It is isolated from residential houses to avoid possible complaints from customers due to substation equipment noise and audio/video (AV) signal interference.



The substation's civil and structural works as well as ancillaries, such as steel structures for supports and substation take-off, panel shelter and perimeter lighting, conform to the applicable international and local design standards.

DISTRIBUTION LINES

The double circuit 13.2 kV 3-phase primary distribution lines utilize a single conductor per phase configuration with one (1) overhead grounding wire supported by concrete and wood poles. The type of conductor used for the distribution lines was the bare #4/0 ACSR cable. The conductor's *ampacity* of about 360 amperes is sufficient to handle the energy requirements for the next fifteen (15) years.

The distribution lines along the national road have complied with the average ten (10) meter distance set by the DPWH, measured from the road centerline. These lines were erected in close proximity to the access roads. Minimal vegetations were affected to clear the right-of-way (R-O-W) of the distribution lines.

A perusal of the evidence presented herein showed that the completion and acquisition of the aforesaid projects redounded to the benefit of CEBECO III's consumers in terms of continuous, reliable and efficient power supply as mandated by Republic Act No. 9136, or the Electric Power Industry Reform Act of 2001 (Section 2. Declaration of Policy – (b) “to ensure the quality, reliability, security and affordability of the supply of electric power”).



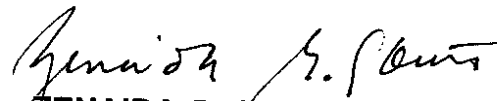
WHEREFORE, the foregoing premises considered, the application for approval of emergency capital projects — re: emergency construction of 10 MVA power substation at Balamban, Cebu and the construction of 69 kV subtransmission line and 13.2 kV double circuit distribution lines and acquisition of logistical support equipment filed by Cebu III Electric Cooperative, Inc. (CEBECO III) is hereby **APPROVED**.

Relative thereto, CEBECO III is hereby directed to pay a permit fee in the amount of **Three Hundred Six Thousand Five Hundred Forty-One Pesos and Fifteen Centavos (PhP306,541.15)**, within fifteen (15) days from receipt hereof, computed as follows:

$$\frac{\text{PhP}40,872,153.00}{\text{PhP}100.00} \times \text{PhP}0.75 = \text{PhP}306,541.15$$


SO ORDERED.


Pasig City, June 15, 2009.


ZENAIDA G. CRUZ-DUCUT
Chairperson


RAUF A. TAN
Commissioner


ALEJANDRO Z. BARIN
Commissioner


MARIA TERESA A. R. CASTAÑEDA
Commissioner


JOSE C. REYES
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