



**Regulatory Reset for
Iligan Light and Power, Inc. (ILPI)**

**April 2009 to March 2013
(Second Regulatory Period)**

DRAFT DETERMINATION

ERC Case No. 2008-027 RC

September 25, 2008

Regulatory Reset for Iligan Light and Power, Inc.
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Pursuant to Section 43(f) of Republic Act No 9136, otherwise known as the Electric Power Industry Reform Act of 2001 (EPIRA), and Rule 15, Section 5(a) of its Implementing Rules and Regulations (IRR), the Energy Regulatory Commission (ERC) promulgated the *Distribution Wheeling Rates Guidelines* on December 10, 2004. These were subsequently updated and re-issued on July 26, 2006 as the *Rules for Setting Distribution Wheeling Rates for Privately Owned Distribution Utilities entering Performance Based Regulation (Second Entry Point)*.

Under Section 7.1.2 of the DWRG and the subsequent RDWR, the ERC was required to publish a Regulatory Reset Issues Paper to provide its initial views on the issues to be discussed during the pending Regulatory Reset Process, to specify the information required to be delivered by each Regulated Entity for the purposes of the Regulatory Reset Process and the time by which such information should be delivered. The Regulatory Reset Issues Paper was published on January 10, 2007. Following public consultation on the Issues Paper, the ERC's final view on the Regulatory Reset Process was described in the Position Paper on the Regulatory Reset for the October 2008 to September 2012 Regulatory Period for Privately Owned Distribution Utilities subject to Performance Based Regulation, published on March 14, 2007.

Annex B of ERC Resolution No. 12-02, Series of 2004 "Adopting a Methodology for Setting Distribution Wheeling Rates", dated December 10, 2004, defined five (5) entry points into PBR for privately owned Distribution Utilities. This was later amended to four (4) entry points by the ERC under Resolution 24, Series of 2007, dated October 24, 2007.

In accordance with the RDWR and the Position Paper, the three (3) Regulated Entities entering Performance Based Regulation (PBR) at the Second Entry Point, these being Iligan Light and Power, Inc. (ILPI), Mactan Electric Company, Inc. (MECO) and Cotabato Light and Power Company (CLPC), filed various information and data relating to the requirements for the Regulatory Reset Process on May 27, 2007.

Pursuant to Section 7.1.7 of the RDWR, after consideration of the information provided by the Regulated Entities and the reports prepared by its Regulatory Reset Experts, the ERC is required to publish a Draft Determination on the price control arrangements that will apply to the Regulated Entities for the Second Regulatory Period. This document presents the ERC's Draft Determination for ILPI, based on the outcomes of its analysis to date.

Submissions are sought on this Draft Determination. Details of the required format and time of submissions, as well as the schedule for legal processes on the Draft Determination, are provided in Section 1.4 of the document.

TABLE OF CONTENTS

1. INTRODUCTION	4
1.1 Legal basis	4
1.2 Overview of the Reset Process	5
1.3 Purpose of the Draft Determination	6
1.4 Submissions on the Draft Determination	7
1.5 Confidentiality of Information	7
2. FORECASTS OF ECONOMIC PARAMETERS	9
2.1 Purpose of the Economic Forecasts	9
2.2 Consumer Price Index (Philippines) : Utility Applications	9
2.3 Consumer Price Index – USA	11
2.4 Foreign Exchange Rate – Peso/US\$	12
2.5 ERC Draft Decision – Forecast Economic Indices	14
3. ENERGY FORECASTS	15
3.1 General	15
3.2 Energy Consumption Forecast	15
3.3 ERC Draft Decision on Consumption Forecast	18
3.4 Demand Forecasts	18
3.5 ERC Draft Decision on Maximum Demand Forecasts	19
4. CAPITAL EXPENDITURE FORECASTS	21
4.1 Approach to capital expenditure forecasts	21
4.2 Purpose of the capital expenditure program	21
4.3 Capital expenditure program proposed by ILPI	22
4.4 Analysis of ILPI’s capital expenditure program – General	24
4.5 Analysis of ILPI’s capital expenditure program – Significant projects	24
4.6 Analysis of ILPI’s capital expenditure program – Residual expenditure	25
4.7 Expenditure program proposed by PB Associates	26
4.8 ERC Draft Determination on the Capital Expenditure Program	27
4.9 Acquired sub-transmission assets	28
5. OPERATING AND MAINTENANCE EXPENDITURE FORECASTS	30
5.1 Approach to operating & maintenance expenditure forecasts	30
5.2 Purpose of the operating and maintenance expenditure program	30
5.3 Operating and maintenance expenditure proposed by ILPI	31
5.4 Analysis of operating and maintenance expenditure - methodology	32
5.5 Analysis of the base operating and maintenance expenditure	32

5.6	Analysis of the Opex Line items.....	34
5.7	Analysis of related business expenditure.....	35
5.8	Expenditure program proposed by PB Associates	35
5.9	ERC Draft Determination on the operating and maintenance expenditure	36
6.	OTHER TAXES, LEVIES AND DUTIES.....	39
6.1	Approach to other taxes, levies and duties expenditure forecasts.....	39
6.2	Purpose of the taxes, levies and duties expenditure	39
6.3	License fees, levies, duties and other taxes expenditure proposed by ILPI	40
6.4	Analysis of license fees, levies, duties and other taxes expenditure	41
6.5	Draft determination on license fees, levies, duties and other taxes.....	41
7.	REGULATORY ASSET BASE (RAB)	43
7.1	Approach to the RAB	43
7.2	Opening valuation of the RAB.....	43
7.3	Draft Determination on the opening value of the RAB	45
7.4	Regulatory depreciation	46
7.5	Draft Determination - Rolled forward asset base	46
7.6	Draft Determination on Working capital	47
8.	WEIGHTED AVERAGE COST OF CAPITAL (WACC)	48
8.1	Purpose of the regulatory WACC.....	48
8.2	Approach to the WACC.....	48
8.3	WACC Methodology	49
8.4	Final Determination – Regulatory WACC	50
9.	ANALYSIS OF REVENUE REQUIREMENTS AND PRICE CAPS	52
9.1	Approach to calculating the Maximum Average Price (MAP)	52
9.2	Annual Revenue Requirement – ILPI application	52
9.3	Annual Revenue Requirement – ERC analysis	53
9.4	Draft determination – Allowed Revenue Requirement (ARR).....	54
9.5	Draft determination – Smoothed Maximum Average Price (SMAP)	55
9.6	Setting the P ₀ -factor	58
9.7	Side constraints	59
9.8	Draft Determination on the opening price and smoothing factor.....	59
10.	PERFORMANCE INCENTIVE SCHEME (PIS).....	61
10.1	Background to the Performance Incentive Scheme.....	61
10.2	Overview of the Price-linked Incentive Scheme.....	61
10.3	Overview of the Guaranteed Service Level Scheme	63
10.4	Information Disclosure Scheme	63

10.5	Price-linked Incentive Scheme proposed by ILPI	64
10.6	Guaranteed Service Level Scheme proposed by ILPI	65
10.7	Excluded events.....	66
10.8	ERC Draft Decision on the Price-linked Incentive Scheme	66
10.9	ERC Draft Decision on the GSL Scheme	67
10.10	ERC Draft Determination on Excluded Events.....	68
APPENDIX A : APPROVED CAPITAL EXPENDITURE PROGRAM.....		69
APPENDIX B : APPROVED OPERATING & MAINTENANCE EXPENDITURE		71
APPENDIX C : APPROVED LEVIES, DUTIES AND OTHER TAXES (OTHER THAN CORPORATE INCOME TAX) EXPENDITURE.....		74

1. INTRODUCTION

1.1 Legal basis

1.1.1 Section 43(f) of Republic Act No 9136, otherwise known as the Electric Power Industry Reform Act of 2001 (EPIRA), and Rule 15, Section 5(a) of its Implementing Rules and Regulations (IRR), authorized the ERC to adopt alternative forms of internationally accepted rate-setting methodology. Pursuant to the aforementioned provisions of law, the ERC, after conducting public consultation, adopted on December 10, 2004 the *Distribution Wheeling Rates Guidelines* (DWRG). These were subsequently updated and after further public consultation re-issued on July 26, 2006 as the *Rules for Setting Distribution Wheeling Rates for Privately Owned Distribution Utilities entering Performance Based Regulation (First Entry Point)* (RDWR). The RDWR provides for a performance-based regulation (PBR) using a price cap to set the distribution wheeling rates to be charged by Distribution Utilities to its customers.

1.1.2 Annex B of ERC Resolution No. 12-02, Series of 2004 “Adopting a Methodology for Setting Distribution Wheeling Rates”, dated December 10, 2004, defined five (5) entry points into PBR. This was subsequently revised to four (4) entry points under ERC Resolution No. 24, Series of 2007, dated October 24, 2007. The ERC is currently publishing its Draft Determinations for the Regulated Entities entering PBR at the Second Entry Point. This document relates specifically to the Draft Determination for Iligan Light and Power, Inc. (ILPI). Similar documents are being published on the same date to describe the Draft Determinations for the other Regulated Entities in the Second Entry Group, these being:

- a) Cotabato Light and Power Company (CLPC); and
- b) Mactan Electric Company, Inc (MECO).

The Draft Determination applies to the Second Regulatory Period for this entry group, which commences on April 1, 2009 and ends on March 31, 2013.¹

1.1.3 Under Section 7.1.2 of the RDWR, the ERC is required to publish a Regulatory Reset Issues Paper to provide its initial views on the issues to be discussed during the pending Regulatory Reset Process, to specify the information required to be delivered by each Regulated Entity for the purposes of the Regulatory Reset Process and the time by which such information should be delivered. The Regulatory Reset Issues Paper (Issues Paper) was published on January 10, 2007. Following public consultation on the Issues Paper, the ERC’s final view on the Regulatory Reset Process was described in the Position Paper on the Regulatory Reset for the October 2008 to September 2012 Regulatory Period for Privately Owned Distribution Utilities subject to Performance Based Regulation (Position Paper), published on March 14, 2007.

1.1.4 In the Position Paper, the process to be undertaken and the timetable for the regulatory reset for the Second Regulatory Period were set forth as follows:

- a) October 16, 2007 : Regulated Entities to file rate applications.
- b) November 2007 : ERC to conduct expository and evidentiary hearings on the applications.
- c) April 11, 2008 : ERC to publish its Draft Determination on the applications and price settings, for consultation.
- d) May 16, 2008 : Submissions on draft determination close.

¹ Note that there was no First Regulatory Period for this entry group.

- e) May-June 2008 : ERC to conduct public consultation and evidentiary hearings.
- f) August 1, 2008 : ERC to issue the Final Determination on the Regulated Entities' applications and the price settings for the Second Regulatory Period.

1.1.5 In a series of communications between the ERC and the Regulated Entities and following the aforementioned reduction in the number of entry groups into PBR, some changes were agreed to the above timetable, the most notable being:

- a) While the Position Paper and the RDWR called for rate applications prior to the Draft Determination, on further consideration this was found to be inappropriate. The actual rate applications can only be made once the ERC has made its final determination on the price caps under PBR. The interim rate applications were therefore amended to take the form of a revenue application, in which the Regulated Entities could apply for approval of their revenue requirements and the performance incentive scheme that would apply during Second Regulatory Period, and on which the final rate-setting for the Second Regulatory Period would be based.
- b) The date for filing this revenue application was moved to May 27, 2008.
- c) The publication of the Draft Determinations was set on September 25, 2008.
- d) Closing date for submissions on the Draft Determination was changed to October 24, 2008.
- e) Public consultation on the Draft Determination will occur from November 4 to 7, 2008.
- f) The Final Determination on the rates for the Second Regulatory Period will be issued on December 12, 2008.²

1.2 Overview of the Reset Process

1.2.1 The Reset Process for the Second Entry Group's Second Regulatory Period (October 1, 2007 until March 31, 2009) commenced with the ERC's issuance of the Issues Paper on January 10, 2007 and the subsequent publication of the Position Paper on March 14, 2007.

1.2.2 In compliance with the Position Paper, the Regulated Entities filed their applications for approval of the allowed revenue and performance incentive schemes (Revenue Applications) for the Second Regulatory Period on May 27, 2008. Following the receipt of these applications, the ERC conducted the following hearing and consultation process:

- a) May 28, 2008 : ERC issued Order
- b) June 14, 2008 : First publication of the applications by the Regulated Entities
- c) June 20, 2008 : Second publication of the applications by the Regulated Entities
- d) July 1, 2008 : CLPC jurisdictional hearing
- e) July 4, 2008 : MECO jurisdictional hearing
- f) July 7, 2008 : CLPC clarificatory meeting
- g) July 9, 2008 : ILPI clarificatory meeting

² In terms of the Final Determination, the maximum average price-cap for Regulatory Year 2010 will be decided, as well as the efficiency factor (X-factor) that will apply for the whole of the Second Regulatory Period. This price cap still has to be converted into distribution rates, which will involve a further consultation process prior to the final rate structure being accepted by the ERC, for implementation on April 1, 2009.

- h) July 10, 2008 : ILPI evidentiary hearing
- i) July 14, 2008 : CLPC evidentiary hearing
- j) July 23, 2008 : MECO clarificatory meeting
- k) July 24, 2008 : MECO evidentiary hearing
- l) August 26, 2008 : Follow-up clarificatory meeting with MECO

Provision was also made for hearings during August where parties of record to the Revenue Application cases could file counter-evidence. However, no such evidence was filed and the hearings were therefore not required.

- 1.2.3 During these hearings, the ERC informed all interested parties of the procedures and timelines pertaining to the Regulatory Reset Process. The Regulated Entities had opportunity to present witnesses to support their revenue and performance incentive scheme applications and to answer questions in this regard from parties of record and the ERC.
- 1.2.4 As noted in Paragraph 1.2.2, additional provision was made for clarificatory meetings with each of the Regulated Entities. The purpose of these meetings was to allow the ERC's staff and Regulatory Reset Experts to present detailed questions and discuss details of their applications with technical and administrative staff of the Regulated Entities in a less formal environment (than evidentiary hearings). All parties of record were invited to observe these meetings. All information gathered during and subsequent to these meetings (as a result of requests for additional information made during the meetings) that were considered by the Reset Experts and the ERC in preparing this Draft Determination was formally offered as supplementary evidence to the applications.
- 1.2.5 Following the hearings and analysis of the applications and evidence presented by ILPI and after considering the recommendations of the ERC's Regulatory Reset Experts, the ERC has concluded a preliminary position on the price caps and price path that should apply to ILPI for the Second Regulatory Period. This position is described in this Draft Determination.

1.3 Purpose of the Draft Determination

- 1.3.1 The Draft Determination embodies the ERC's initial position on the price control arrangements that will apply to ILPI for the Second Regulatory Period. It describes the ERC's initial evaluation of ILPI's revenue and performance incentive scheme application, as well as the evidence presented in support thereof during the clarificatory meetings and evidentiary hearings.
- 1.3.2 The Draft Determination is not a final resolution of ILPI's applications. It is designed to present the ERC's preliminary view on the price arrangements and to offer interested parties the opportunity to comment on this view before a final determination is made. Moreover, the Draft Determination does not have any impact or bearing on ILPI's current distribution wheeling charges or will not be used to set future distribution wheeling charges.
- 1.3.3 Only after full consideration and analysis of submissions and discussions at the public hearings on the Draft Determination, and after termination of the presentation of evidence by all parties, will the ERC prepare its Final Determination on the price control arrangements that will apply to ILPI for the Second Regulatory Period.

1.4 Submissions on the Draft Determination

- 1.4.1 Submissions are invited on this Draft Determination. Any person other than the applicant and parties of record who wants to participate in the public consultation may file comments in writing to the ERC which contains among others, the name and address of such person and a concise statement of the comments and the ground relied upon, within fifteen (15) days from the date of this Draft Determination.
- 1.4.2 For the public consultations, the applicant and parties of record may file any comments, questions, suggested modifications to data sources, and any other issues pertaining to this Draft Determination in writing address to the ERC Main Office at 16th Floor, Pacific Center Building, San Miguel Avenue, Ortigas Center, Pasig City and through electronic mail sent to tariffs@erc.gov.ph on or before October 24, 2008. On October 31, 2008, all submissions shall be posted at the Commission's official website at www.erc.gov.ph. Any other person shall file his/her comments within the same period previously mentioned.
- 1.4.3 Parties, who do not wish to participate in the public consultations, are also welcome to make submissions. Such submissions shall be submitted in the same format as that described above and at the same date.
- 1.4.4 The ERC hereby sets this matter for initial public consultation at the following times:
- November 4, 2008, 9:00 AM (CLPC) - Manila³
 - November 6, 2008, 9:00 AM (ILPI) - Iligan City
 - November 7, 2008, 2:00 PM (MECO) - Lapu Lapu City

Although this consultation is open to the public, only parties of record who have filed written comments will be allowed to participate in the discussions. Should there be time towards the end of the public consultation for verbal comments from other persons who have an interest in the proceedings, this shall be allowed by the Commissioner in charge of public consultation. Parties of record are not required to have an attorney present but are strongly encouraged to have technical experts present with knowledge of accounting, finance, economics and pricing issues.

- 1.4.5 To ensure that the public consultations progress in an efficient and timely manner, the ERC intends to provide in advance to parties of record a summary of the issues raised and comments made in the submissions. Where such issues can be addressed or answered directly, this will be noted in the summary. It should be noted that the public consultation is not intended to be a forum for merely repeating issues raised or comments made in the written submissions – all interested parties have access to read the submissions. The public consultation is intended to allow parties of record the opportunity to highlight the key aspects of their submissions and to afford the ERC and parties of record the opportunity to discuss submissions.

1.5 Confidentiality of Information

In terms of Clause 7.1.4 of the RDWR, where a written submission identifies some confidential information, the ERC may only publish or otherwise disclose that information if the ERC has given written notification to this effect to the person or party who has made the submission and the party has not objected in writing to such publication or disclosure within two weeks of receiving written notification. After reviewing the

³ Given the current security situation in Cotabato City, until further notice all further public consultation associated with this case will be held at the ERC offices in Manila.

objection, the ERC may decide to still publish or disclose the information, giving one week's advance notice to the affected party.

It should be noted that, given the timeframe for the consultation process, going through this process may result in a submission not being published in time for the public consultation.

2. FORECASTS OF ECONOMIC PARAMETERS

2.1 Purpose of the Economic Forecasts

- 2.1.1 The economic forecasts are important inputs into the determination of the annual revenue requirement and the resulting maximum average price-caps (MAP) for ILPI's Second Regulatory Period. In particular, this section describes the ERC's view on the expected consumer price index (CPI) in the Philippines and the United States of America over the Second Regulatory Period, as well as the forecast Philippine Peso (PhP) and US dollar (US\$) exchange rates.⁴
- 2.1.2 This chapter discusses the macroeconomic forecasts available for the Philippines from a number of independent sources. The information from these sources is compared with the economic forecasts submitted by ILPI in its Revenue Application in order to assess whether these forecasts are reasonable to apply during the Second Regulatory Period, or whether they need to be adopted.
- 2.1.3 It should be noted that as stated in Section 3.1.4 of the Position Paper, the ERC has decided to adopt a single set of economic forecasts for all the Regulated Entities making up the Second Entry Group. The economic forecasts submitted by the other Regulated Entities in their Revenue Applications are therefore also referred to in this chapter.

2.2 Consumer Price Index (Philippines): Utility Applications

- 2.2.1 The Philippines CPI forecast is important to the regulatory reset as this is a prime driver for most operating and maintenance expenditure increases over the Second Regulatory Period, as well as for a large part of the increases in capital expenditure.
- 2.2.2 These expenditure increases have been included in the Regulated Entities' revenue forecasts (discussed in Sections 4, 5 and 6), which are in turn considered in determining the smoothing factor (X-factor) for each Regulated Entity (see the analysis in Section 8.1). The latter calculations also take the forecast Philippines inflation directly into account. Once the X-factor is determined, the projected Smoothed Maximum Average Price caps (SMAPs) and the opening Maximum Average Price-cap (MAP) for the Second Regulatory Period can be established, based on the opening price and the forecast inflation rate, adapted with the X-factor.
- 2.2.3 During the course of the Second Regulatory Period, the X-factor will be used with the actual CPI outcomes experienced in the Philippines during each year to determine the actual price path (as opposed to the initial projection of the MAP at the reset).
- 2.2.4 In its application, ILPI proposed forecasts for the Philippines CPI that correspond to those published by the Economist Intelligence Unit (EIU) in March 2008⁵, converted to regulatory years. Since this data set only provides forecasts until 2012, it was assumed that the 2012 figures will also apply in 2013.
- 2.2.5 This approach was also adopted by the other two (2) Regulated Entities in the Second Entry Group.

⁴ The RDWR makes provision for local and international expenditure, using the US\$ as the proxy amount for international expenditure. All expenditure in other denominations therefore has to be converted into US dollar amounts.

⁵ These indices were communicated to ILPI by the ERC as part of pro forma documentation for filing the Revenue Application, but there was no obligation on any Regulated Entity to apply the figures.

2.2.6 The forecasts proposed by the three (3) Regulated Entities are presented in Table 2.1 and Figure 2.1 below. This is also compared with the inflation forecasts of the ERC in its final determination on the price-control arrangements for the First Entry Group and updated figures from EIU. The ERC consulted the National Economic Development Authority (NEDA), but these figures were not available. Since the regulatory years run from April 1 to March 31, the annual CPI figures have been converted to these periods.⁶ In addition, all inflation forecasts were converted from a common regulatory year basis.

Table 2.1 : Various Philippines CPI Movement Forecasts (Regulatory Years)

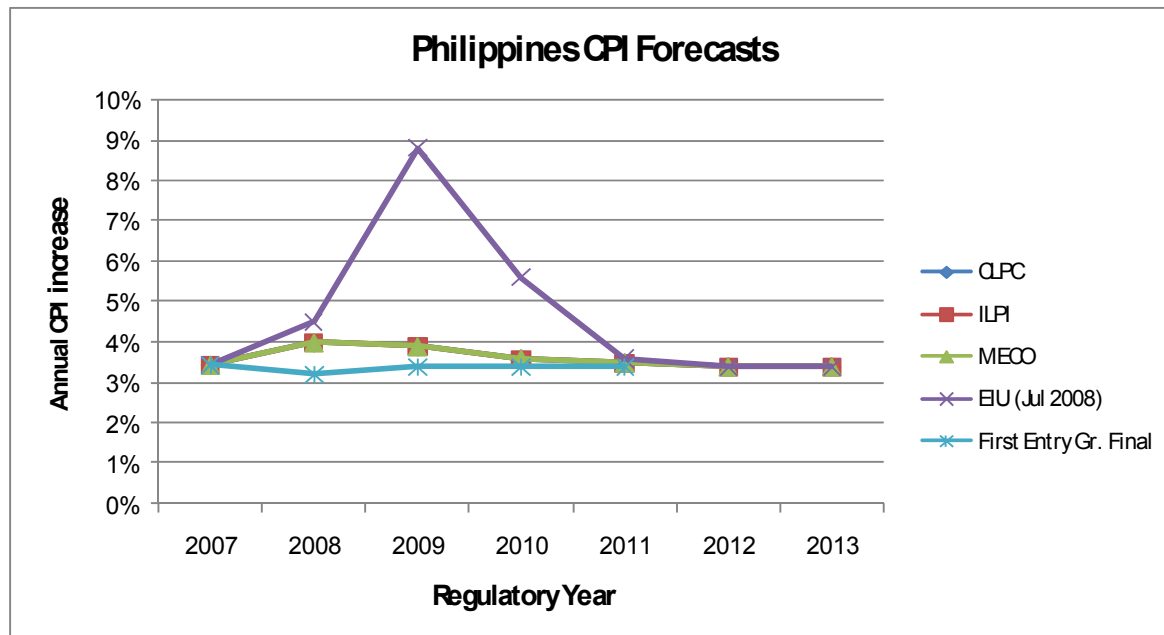
	2007	2008	2009	2010	2011	2012	2013
CLPC	3.4%	4.0%	3.9%	3.6%	3.5%	3.4%	3.4%
ILPI	3.4%	4.0%	3.9%	3.6%	3.5%	3.4%	3.4%
ILPI	3.4%	4.0%	3.9%	3.6%	3.5%	3.4%	3.4%
EIU (Jul 2008)	3.4%	4.5%	8.8%	5.6%	3.6%	3.4%	3.4%
First Entry Gr. Final	3.4%	3.2%	3.4%	3.4%	3.4%		

Source : Economist Intelligence Unit (Aug. 2008)

ERC Final Determination for First Group Entrants

Note : Data for 2007 regulatory year based on actual indices

Figure 2.1 : Comparison of Philippine CPI Forecasts (Regulatory Years)



2.2.7 It should be noted that the July 2008 EIU figures used in Table 2.1 are more recent than those obtained from other sources and therefore better takes into account the substantial recent increases experienced in the Philippines.

2.2.8 While the CPI forecasts range across a considerable band, reflecting the uncertainty that exists in forecasting such economic indices, this is not considered a material problem in terms of the impact on the price setting. The CPI forecast is taken into account in both sides of the equation for the calculation of the X-factor⁷ – indirectly in the case of the annual revenue requirement. The revenue requirement is calculated in nominal terms,

⁶ This was simply done by calculating a weighted average of the calendar year figures, where the weighting is in accordance to the proportion of the regulatory year that overlaps with the calendar year.

⁷ Section 4.15.3 of the RDWR

and takes into account the same inflation forecast when calculating future expenditure. As long as the economic indicators are consistently applied, the impact of choosing a lower or higher CPI (within the indicated range) on the calculated X-factor is therefore low.

- 2.2.9 In addition, the actual annual price caps will be based on the actual CPI for each regulatory year and discrepancies between the forecast and actual figures will therefore not impact on future price settings.

2.3 Consumer Price Index – USA

- 2.3.1 Capital investment in distribution networks generally involves substantial overseas purchases. The RDWR recognizes this and uses the United States dollar as proxy for all foreign purchases.⁸ Movements in the US CPI therefore have a significant bearing on the forecast expenditure of Regulated Entities for the Second Regulatory Period.

- 2.3.2 To recognize the parity relationship between international rates of inflation, interest rates and exchange rates, it is important to adopt a consistent approach (with that used for the local CPI forecast) to selecting the US CPI forecasts. As with the local CPI forecasts, if this consistency is maintained, differences between forecasts for the US CPI, as long as these are within reasonable bounds, should not have a material impact on the calculation of the X-factor.

- 2.3.3 In addition, the calculation of the weighted index that is used to determine the annual MAP⁹ also takes into account movements in the US CPI – if these exceed a certain threshold limit.

- 2.3.4 In its application, ILPI proposed forecasts for the USA CPI that corresponds to those published by the Economist Intelligence Unit (EIU) in March 2008¹⁰, converted to regulatory years. Since this data set only provides forecasts until 2012, it was assumed that the 2012 figures will also apply in 2013.

- 2.3.5 This approach was also adopted by the other two Regulated Entities in the Second Entry Group.

- 2.3.6 The forecasts proposed by the three Regulated Entities are presented in Table 2.1 and Figure 2.1 below. This is also compared with the inflation forecasts of the ERC in its final determination on the price-control arrangements for the First Entry Group, updated figures from the EIU and figures published by the International Monetary Fund (IMF)¹¹. The ERC consulted the National Economic Development Authority (NEDA), but these forecasts were not available. Since the regulatory years run from April 1 to March 31, the annual CPI figures have been converted to these periods.¹² In addition, all inflation forecasts were converted from a common regulatory year basis.

⁸ This does not imply that all foreign purchases will be made in the US, but that foreign purchases should be converted to US dollar terms for the purpose of assessing international CPI and exchange rate movements.

⁹ Sections 4.2.1 and 3.3 of the RDWR

¹⁰ Supra note 5

¹¹ The IMF projections are only up to 2009, and have been assumed constant thereafter.

¹² This was simply done by calculating a weighted average of the calendar year figures, where the weighting is in accordance to the proportion of the regulatory year that overlaps with the calendar year.

Table 2.2: Various US CPI Movement Forecasts (Regulatory Years)

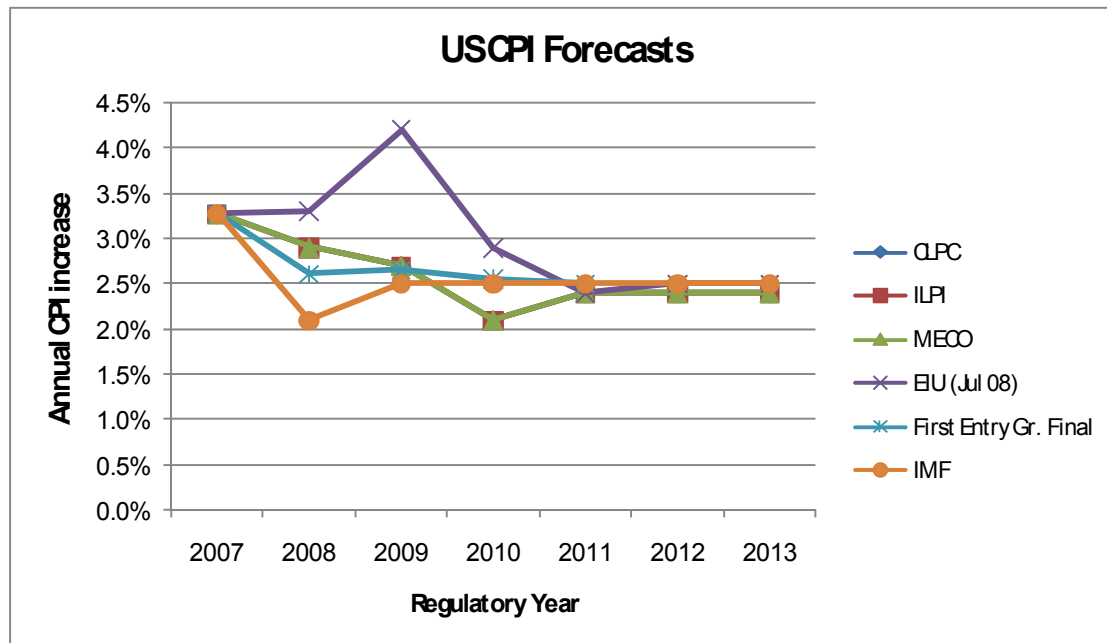
	2007	2008	2009	2010	2011	2012	2013
CLPC	3.3%	2.9%	2.7%	2.1%	2.4%	2.4%	2.4%
ILPI	3.3%	2.9%	2.7%	2.1%	2.4%	2.4%	2.4%
ILPI	3.3%	2.9%	2.7%	2.1%	2.4%	2.4%	2.4%
EIU (Jul 08)	3.3%	3.3%	4.2%	2.9%	2.4%	2.5%	2.4%
First Entry Gr. Final	3.3%	2.6%	2.7%	2.6%	2.5%		
IMF	3.3%	2.1%	2.5%	2.5%	2.5%	2.5%	2.5%

Source : Economist Intelligence Unit (Aug 2008)

ERC Final Determination for First Group Entrants

Note : Data for 2008 regulatory year based on actual indices

Figure 2.2 : Comparison of US CPI Forecasts (Regulatory Years)



2.4 Foreign Exchange Rate – Peso/US\$

2.4.1 The last economic index required to be forecast for the Second Regulatory Period is the rate of exchange of the Philippine Peso against the US dollar. As noted before, the US dollar is used as proxy for foreign expenditure by the Regulated Entities. Since the allowed revenue for each Regulated Entity will be set in Peso, it is necessary to convert foreign expenditure to Peso, and exchange rate movements therefore impact directly on the approved expenditure.

2.4.2 As noted above, given the parity relationship between exchange rates, interest rates and inflation rates, it is important to apply a consistent approach to these factors. This will ensure that forecasts that deviate somewhat from actual future rates will not have a material impact on the X-factor.

2.4.3 In its application, ILPI used the Peso/US\$ rate published by the Economist Intelligence Unit (EIU) in March 2008¹³, converted to regulatory years. Since this data set only

¹³ Supra note 5

provides forecasts until 2012, it was assumed that the 2012 figures will also apply in 2013.

2.4.4 This approach was also adopted by the other two Regulated Entities in the Second Entry Group.

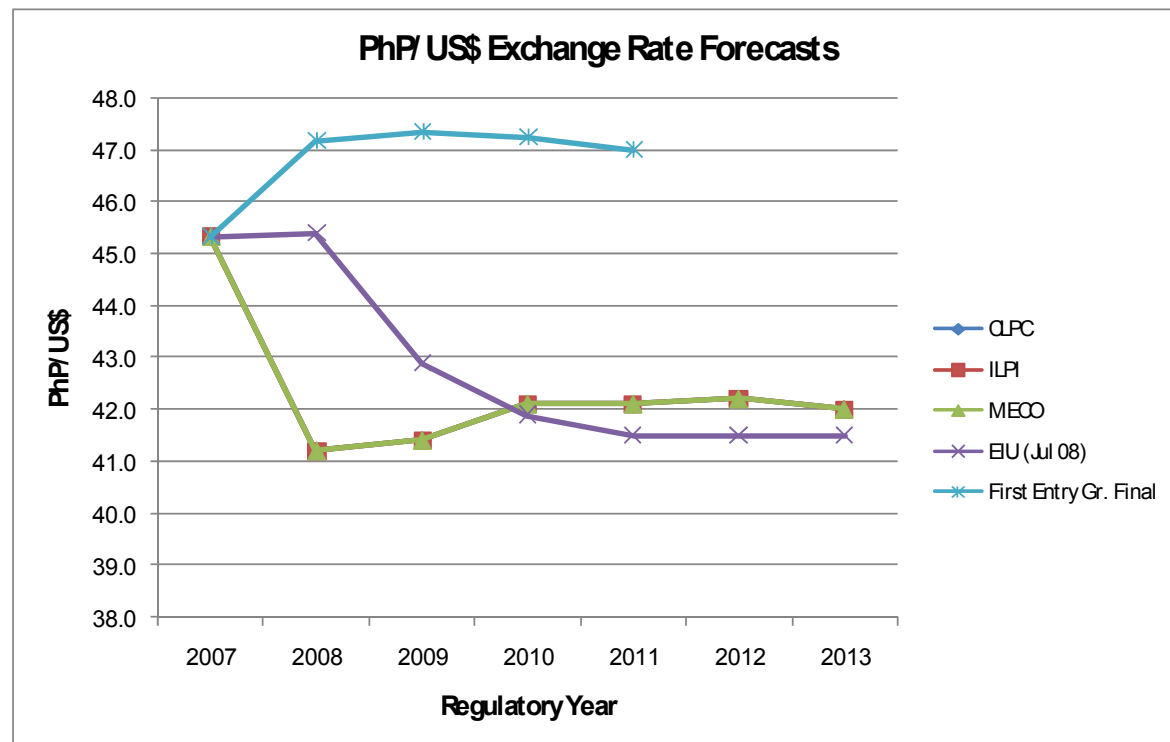
2.4.5 The rate of exchange forecasts proposed by the three Regulated Entities are presented in Table 2.3 and Figure 2.3 below. This is also compared with the forecasts of the ERC in its final determination on the price-control arrangements for the First Entry Group and updated figures from the EIU. Since the regulatory years run from April 01 to March 31, the average annual rate of exchange figures have been converted to these periods, assuming straight-line movements throughout the year. In addition, all exchange rate forecasts were converted to a common regulatory year basis.

Table 2.3 : Various PhP/US\$ Rate of Exchange Forecasts (Regulatory Years)

	2007	2008	2009	2010	2011	2012	2013
CLPC	45.3	41.2	41.4	42.1	42.1	42.2	42
ILPI	45.3	41.2	41.4	42.1	42.1	42.2	42
ILPI	45.3	41.2	41.4	42.1	42.1	42.2	42
EIU (Jul 08)	45.3	45.4	42.9	41.9	41.5	41.5	41.5
First Entry Gr. Final	45.3	47.2	47.4	47.3	47.0		

Source : Economist Intelligence Unit (Aug 2008)
ERC Final Determination for First Group Entrants

Figure 2.3 : Comparison of PhP/US\$ Exchange Rate Forecasts (Regulatory Years)



2.5 ERC Draft Decision – Forecast Economic Indices

- 2.5.1 As discussed above, it is important to apply a consistent approach to the forecasting of the economic indices. In addition, it is also important that forecasts are obtained from a reliable and independent macro-economic forecasting specialist. The ERC resolved to use the forecasts obtained from the Economist Intelligent Unit (EIU), based on July 2008 values.
- 2.5.2 The ERC notes that the economic indices are currently experiencing a period of high volatility and that the current CPI and exchange rate values are higher than the averages indicated by the EIU. It is also noted that some of the forward projections for these indices as reported in the press are higher as well. It is believed that the EIU is likely to update these indices before the ERC’s final determination and these updated values will be used for that decision. The ERC will also further pursue long-term forecasts of the required indices with NEDA. However, in the absence of other reliable forecast information, the ERC has no basis on which to accept different forecast figures.
- 2.5.3 The ERC also notes that there are correction mechanisms built into the RDWR for material changes between the forecast and actual CPI or exchange rates which will largely offset the impact on consumers or Regulated Entities if the value of these indices should in the future differ materially from the estimated values used in the draft and final determinations.
- 2.5.4 In Table 2.4, the forecasts adopted by the ERC for the Draft Determination are indicated.

Table 2.4 : Economic Indices Forecasts Accepted by the ERC

	2008	2009	2010	2011	2012	2013
Philippine CPI (% increase per regulatory year)	4.5%	8.8%	5.6%	3.6%	3.4%	3.4%
US CPI (% increase per regulatory year)	3.3%	3.3%	4.2%	2.9%	2.4%	2.4%
PhP/US\$ exchange rate (average for regulatory year)	45.42	42.93	41.88	41.50	41.50	41.50

(Source : EIU, August 2008 – converted to regulatory years)

- 2.5.5 These figures differ from those used in the ERC’s final determinations on the price-control arrangements for the First Entry Group. This is a reflection of the updated forecast economic parameters, not of any change in approach by the ERC.

3. ENERGY FORECASTS

3.1 General

- 3.1.1 Energy consumption and maximum demand forecasts are key parameters for the price determination. Firstly, the forecast energy consumption levels are directly taken into account in calculating the X-factor and the smoothed price path at the start of the regulatory period.
- 3.1.2 In addition, operating and capital expenditure, especially the latter, are heavily influenced by network demand forecasts. Growth in demand therefore represents a primary justification for a Regulated Entity’s capital expenditure plans. More indirectly, growth also drives operating and maintenance expenditure - larger networks, or networks utilized closer to maximum capacity to cater for additional demand, generally require more inputs from all levels of the organization, which over time leads to higher staffing requirements and higher expenditure on maintenance consumables.
- 3.1.3 A price-capped form of regulation is applied to the Distribution Wheeling Services. Since prices are pre-determined for the regulatory period, Regulated Entities’ actual revenue will vary in proportion to energy sales (after accounting for changes in the CPI), with no opportunity to adjust prices to compensate for the fluctuations. The Regulated Entities will bear a so-called “volume risk”. If actual sales are substantially less than forecast, this may mean that they would have to curtail expenditure. On the other hand, if actual consumption levels are higher than forecast, this should allow additional expenditure to cater for the additional demand.¹⁴
- 3.1.4 It is therefore clearly in the Regulated Entities’ best interest to ensure that the energy and demand forecasts are accurate. Under-estimating consumption or demand may lead to reductions in the approved expenditure programs, while over-estimating may give rise to a lower than sustainable price-cap.

3.2 Energy Consumption Forecast

- 3.2.1 The ILPI energy sales forecasts included in the Revenue Application are indicated in Table 3.1 below. A broken down value, including historical figures, is provided in Table 3.2. ILPI’s own consumption has been excluded from the figures.

Table 3.1 : ILPI MWh Energy Sales Figures (Forecast in the Revenue Application)

	2009	2010	2011	2012	2013
Energy consumption (MWh)	187,901	366,002	371,567	462,120	467,870

- 3.2.2 ILPI bases its consumption forecasts on a polynomial curve fit method, based on long-term trends. The ERC’s expenditure review consultant, PB Associates (PBA) reports¹⁵ that the period over which the fit analysis conducted combines periods of very strong growth with slumps – the overall annual growth since 1996 was 4.7%. The growth-forecasts over the Second Regulatory Period is 25.8% per year (compound), but this

¹⁴ This is as opposed to a revenue-capped form of regulation, where prices are allowed to be adjusted (within reasonable limits) to ensure approved revenue levels are maintained. However, should consumption levels rise substantially above that forecast, this may lead to network over-utilization problems, since no additional revenue would become available to cater for additional consumption.

¹⁵ PB Associates report titled “*REVIEW OF FORECAST EXPENDITURE: SECOND REGULATORY PERIOD – Iligan Light and Power Incorporated*”, dated 4 September 2008.

includes the contribution of several bulk consumers that ILPI intends to acquire through the acquisition of TransCo sub-transmission assets.

Table 3.2 : Broken down ILPI MWh Energy Sales Figures

Category	Calendar Years					Regulatory Years				
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Residential	66,115	66,099	67,244	69,808	74,101	74,834	77,755	80,633	83,451	86,187
Commercial	60,307	59,711	61,653	64,522	65,290	65,673	67,203	68,738	70,306	71,935
Industrial	6,860	6,392	6,166	6,334	5,704	5,627	5,332	5,091	4,915	4,811
Flat rate	1,151	1,210	1,210	1,210	1,632	1,670	1,818	1,954	2,076	2,181
Bulk	35,349	36,664	36,162	32,643	40,268	40,098	213,894	215,150	301,373	302,755
TOTAL	169,782	170,076	172,435	174,518	186,995	187,901	366,002	371,566	462,121	467,869
Annual Growth		0.2%	1.4%	1.2%	7.1%	0.5%	94.8%	1.5%	24.4%	1.2%

3.2.3 If the impact of the proposed new directly connected customers is removed, the resulting consumption figures are as presented in Table 3.3. Assuming that consumption at the existing bulk consumers will grow at 2% per year, the overall ILPI growth-forecast for the Second Regulatory Period is then reduced to 2.7% per year (compound).

Table 3.3 : ILPI Consumption Figures without New Bulk Consumers (MWh)

Category	Calendar Years					Regulatory Years				
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Residential	66,115	66,099	67,244	69,808	74,101	74,834	77,755	80,633	83,451	86,187
Commercial	60,307	59,711	61,653	64,522	65,290	65,673	67,203	68,738	70,306	71,935
Industrial	6,860	6,392	6,166	6,334	5,704	5,627	5,332	5,091	4,915	4,811
Flat rate	1,151	1,210	1,210	1,210	1,632	1,670	1,818	1,954	2,076	2,181
Bulk	35,349	36,664	36,162	32,643	40,268	40,098	40,900	41,718	42,552	43,403
TOTAL	169,782	170,076	172,435	174,518	186,995	187,901	193,008	198,134	203,300	208,517
Annual Growth		0.2%	1.4%	1.2%	7.1%	0.5%	2.7%	2.7%	2.6%	2.6%

Source : ILPI application and ERC analysis

3.2.4 The average annual compound growth in consumption between 2004 and 2008 was 2.0%, but this is heavily influenced by the considerable growth figure forecast for 2008 while the forecast compound growth from 2008 to 2013 is 4.2% per year. There is a nine-month overlap between the 2008 calendar year and the 2009 regulatory year and it is therefore not surprising that the 2009 growth forecast is modest. The substantial increase in 2008 is somewhat unusual and appears to arise from an additional bulk supply customer connected to the network.

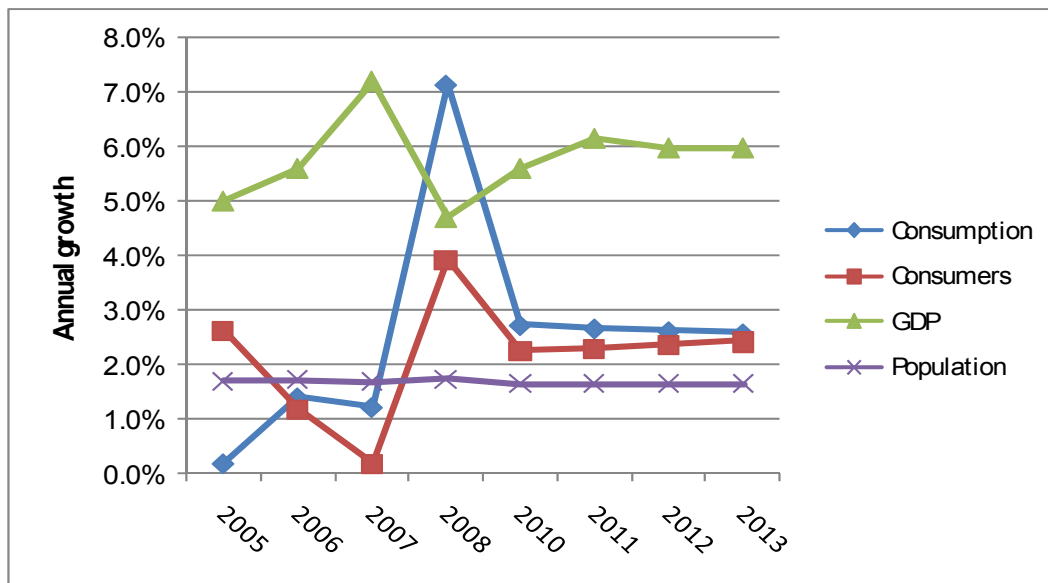
3.2.5 In order to better understand the consumption trends, the ERC also analyzed ILPI's consumer number figures, which is presented in Table 3.4. The overall growth rates indicate a slowdown in 2007, with recovery in 2008. The forecast growth rate is 2.9% per year, but this figure is somewhat suspect given the growth forecast for 2009 which does not seem to reflect the overlap between CY 2008 and RY 2009.

Table 3.4 : ILPI Consumer Numbers (Forecast and Historical)

	HISTORICAL FIGURES (CALENDAR YEARS)				Forecast 2008	FORECAST (REGULATORY YEARS)				
	2004	2005	2006	2007		2009	2010	2011	2012	2013
Total	42,648	43,771	44,280	44,357	46,096	47,114	48,171	49,272	50,431	51,653
Residential	34,739	36,423	37,042	37,208	39,512	40,869	42,241	43,620	44,996	46,359
Commercial	7,892	7,331	7,221	7,133	6,565	6,226	5,908	5,630	5,411	5,270
Industrial	11	11	11	11	12	12	12	12	12	12
Flat Rate	4	4	4	4	4	4	4	4	4	4
Bulk	2	2	2	2	3	3	6	6	8	8
Growth		2.6%	1.2%	0.2%	3.9%	2.2%	2.2%	2.3%	2.4%	2.4%

3.2.6 In Figure 3.1 below, the forecast growth in ILPI's energy consumption (excluding the proposed additional directly connected customers) is compared with their estimated consumer numbers, as well as the predicted population growth in the region and the predicted growth in the national gross domestic product. It is recognized that consumption forecasts for a Distribution Utility are not directly comparable with these reference sources as there is no linear relationship between growth in population, maximum electricity demand, gross domestic product and energy consumption, and that comparisons of local figures with regional or national figures give rise to further inaccuracies. However, these factors are all drivers of energy consumption and are therefore useful indicators of the environment ILPI is likely to face over the Second Regulatory Period.¹⁶

Figure 3.1 : Comparison of Energy Growth Estimates with Consumption Drivers



Sources : Population growth for Lanao del Norte – National Statistics Office, January 2007
GDP growth (Philippines) for 2006 and 2007 – National Statistical Coordination Board (2005 and 2006)
GDP growth forecasts (Philippines) - EIU (2008)

¹⁶ In the absence of directly applicable local statistical indicators, these are the best indicators available.

3.3 ERC Draft Decision on Consumption Forecast

3.3.1 The ERC excluded the five (5) proposed TransCo directly connected customers in the consumption forecast of ILPI. This is in accordance with its Draft Determination on the acquisition of TransCo sub-transmission assets – see the discussion in Section 4.9. With the removal of these customers, the ERC is generally comfortable with ILPI's energy consumption forecasts. For the Draft Determination, the ERC will therefore accept ILPI's modified forecast energy sale figures as discussed above. The figures accepted for the Draft Determination are indicated in Table 3.4.

Table 3.4 : ERC Draft Determination on Forecast Energy Sales (MWh)

Category	Regulatory Years				
	2009	2010	2011	2012	2013
Residential	74,834	77,755	80,633	83,451	86,187
Commercial	65,673	67,203	68,738	70,306	71,935
Industrial	5,627	5,332	5,091	4,915	4,811
Flat rate	1,670	1,818	1,954	2,076	2,181
Bulk	40,098	40,900	41,718	42,552	43,403
TOTAL	187,902	193,008	198,134	203,300	208,517
Growth		2.7%	2.7%	2.6%	2.6%

3.3.2 Given the substantial increase in consumption forecast for 2008, ILPI is requested to verify the actual consumption and, if this proves to differ substantially from the figures submitted with the revenue application, provide updated figures with its submission on this Draft Determination.

3.4 Demand Forecasts

3.4.1 The ILPI maximum demand forecasts provided with the Revenue Application are indicated in Table 3.5 below, as well as historical demand figures from 2004. It should be noted that the Total Regulated Distribution System were based on the total reading on each feeders of Pala-O and Kiwalan Substations and not on a per customer class. The demand figure is non-coincident.

Table 3.5 : ILPI Maximum Electricity Demand (kW) (Forecast and Historical)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Residential					15.2	15.3	15.9	16.5	17.1	17.7
Commercial					13.4	13.5	13.8	14.1	14.4	14.8
Industrial					1.2	1.2	1.1	1.0	1.0	1.0
Flat Rate					0.3	0.3	0.4	0.4	0.4	0.4
Bulk					8.3	8.2	43.9	44.1	61.8	62.1
TOTAL	35.3	33.2	33.7	34.5	38.4	38.5	75.1	76.1	94.7	96.0
Growth		-5.8%	1.3%	2.4%	11.2%	0.5%	94.8%	1.5%	24.4%	1.2%

3.4.2 The figures in Table 3.5 include the additional demand anticipated from the bulk supply consumers that feed directly off the sub-transmission assets that ILPI intends to acquire. In Table 3.6, the impact of these customers was not considered. It is assumed that the growth in demand from the existing bulk consumers will be 2% per year.

3.4.3 The annual compound growth in demand from 2004 to 2008 was 2.1% and the anticipated growth over the regulatory period is 2.8% per year (with the new bulk consumers excluded). As with consumption, a substantial increase in demand for 2008 was foreseen by ILPI. While this appears to be a result of a new bulk consumer connected in the year, it is not clear whether this would fully account for the increase.

Table 3.6 : ILPI Maximum Demand (kW) (Without New Bulk Consumers)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Residential					15.2	15.3	15.9	16.5	17.1	17.7
Commercial					13.4	13.5	13.8	14.1	14.4	14.8
Industrial					1.2	1.2	1.1	1.0	1.0	1.0
Flat Rate					0.3	0.3	0.4	0.4	0.4	0.4
Bulk					8.3	8.2	8.4	8.6	8.7	8.9
TOTAL	35.3	33.2	33.7	34.5	38.4	38.5	39.6	40.6	41.6	42.8
Growth		-5.8%	1.3%	2.4%	11.2%	0.5%	2.7%	2.7%	2.6%	2.6%

3.5 ERC Draft Decision on Maximum Demand Forecasts

- 3.5.1 The demand figures are not directly taken into account in the price-control arrangements. However, demand is an important factor in considering especially, capital expenditure on distribution networks, as well as the degree of asset optimization. PB Associates recommended in their Expenditure Review Report¹⁷ that ILPI's demand forecasts should be slightly amended to ensure a better match between the forecast energy and demand growth.
- 3.5.2 In the revised forecast figures given in Table 3.6, the demand and consumption growth are already closely matched. The ERC therefore accepts these revised demand figures as a reasonable basis for the Second Regulatory Period. As for the consumption figures, ILPI is however requested to verify the actual maximum demand experienced in 2008 with its submission on the Draft Determination.
- 3.5.3 The ERC's draft decision on the forecast maximum demand for ILPI is illustrated in Table 3.7.

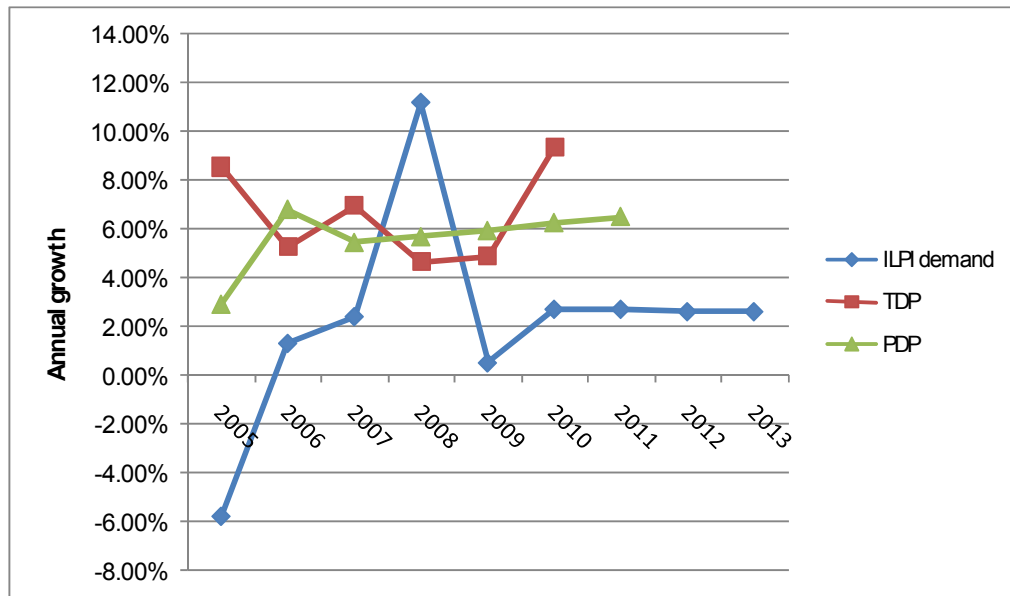
Table 3.7 : ERC Draft Determination on Forecast Maximum Demand (kW)

Forecast	Calendar Years		Regulatory Years				
	2007	2008	2009	2010	2011	2012	2013
Maximum demand (MW)	34,491	38,345	38,530	39,578	40,629	41,688	42,758
Growth in demand (%)	2.4%	11.2%	0.5%	2.7%	2.7%	2.6%	2.6%

- 3.5.4 In Figure 3.2, a comparison is provided between the demand growth forecasts adopted by the ERC, and the growth forecast by the DOE for Mindanao and by TransCo for Mindanao North Central. While it is accepted that the TransCo and DOE information is somewhat dated, it is clear that the ILPI forecasts, as adapted by the ERC, is generally more conservative.

¹⁷ Supra note 15

Figure 3.2 Comparison of Demand Growth Figures



Sources : TransCo demand forecast for Mindanao North Central - Transmission Development Plan, 2006
Department of Energy demand forecast for Mindanao - Power Development Plan, 2006-2014

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4. CAPITAL EXPENDITURE FORECASTS

4.1 Approach to capital expenditure forecasts

- 4.1.1 Section 4.12 of the RDWR specifies the requirements for the capital expenditure forecasts required from Regulated Entities. These forecasts are to be based on the economically efficient capital expenditure requirements to meet the forecast demand over the Second Regulatory Period. The economic efficiency of the forecasts should be assessed in particular against the general principles declared in Section 4.6.1 of the RDWR, and the declaration of policy in Section 2 of the EPIRA.
- 4.1.2 ILPI submitted its proposed capital expenditure program for the Second Regulatory Period as part of its Revenue Application.
- 4.1.3 Also included in the Revenue Application is the proposed capital expenditure for the 2009 Regulatory Year (April 1, 2008 to March 30, 2009). Under the current regulatory arrangements, there is no provision for the ERC to review any capital expenditure subsequent to the start of 2008¹⁸. Since ILPI will be entering PBR at the start of the Second Regulatory Period three months into the 2009 calendar year, the expenditure over the period January 2008 to March 2009 had to be reviewed as part of the Revenue Application and the ERC has therefore decided to include ILPI's capital expenditure program for the 2009 regulatory year as part of its review of the expenditure program for the Second Regulatory Period. The Regulated Entities were therefore required to submit details of this program as part of their Revenue Applications.
- 4.1.4 In terms of Section 4.12.4, the ERC must retain a Regulatory Reset Expert (or Experts) to review the capital expenditure program for a Regulated Distribution System, as well as the supporting information. The ERC appointed Parsons Brinckerhoff Associates (PB Associates) for this purpose.
- 4.1.5 The findings and recommendations of PB Associates with regard to the capital expenditure forecasts submitted by ILPI are presented in an accompanying report (the Expenditure Review Report).¹⁹ This was analyzed by the ERC and forms the basis of the capital expenditure program approved by the ERC, as described below. Since the Expenditure Review Report is available for public review, only the main findings are repeated below.

4.2 Purpose of the capital expenditure program

- 4.2.1 Capital expenditure is critical to the reliable operation of a distribution network and to provide for growing electricity demand. If capital expenditure is at levels lower than that required to maintain acceptable network performance standards or to ensure sufficient capacity for growth, this could compromise the longer term sustainability of an effective distribution service and the ability to provide customers' needs. On the other hand, excessive network investments cause upward price-pressure which is not balanced by commensurate service improvements or value to consumers. It is the goal of the ERC to allow an efficient balance in capital expenditure – to ensure the long-term sustainability of distribution networks while keeping investment levels at the minimum levels required to achieve this goal.

¹⁸ This is because no more rate cases will be filed for the Second Entry Group under the current return-on-rate-base form of regulation.

¹⁹ Supra note 15

4.2.2 From a regulatory perspective, the approved capital expenditure forecasts are included in the value of the rolled forward regulatory asset base, in nominal terms for every year of the Second Regulatory Period. Return on capital, one of the building blocks for determining the allowed revenue requirement for Regulated Entities, is in turn based on the value of the rolled forward asset base.²⁰ In addition, depreciation of newly acquired capital assets is also taken into account in the return of capital, or regulatory depreciation, building block. The approved capital expenditure program therefore has a direct influence on the allowed price-cap for distribution services.

4.3 Capital expenditure program proposed by ILPI

4.3.1 ILPI's historical capital expenditure and the forecast expenditure as submitted in its Revenue Application are shown in Table 4.1. The expenditure figures are in real values for the year indicated. It should be noted that the figures up to 2008 are for calendar years, while those from 2009 onwards are for regulatory years. There is therefore a 9-month overlap between the 2008 and 2009 figures.

Table 4.1 - ILPI Application for Capital Expenditure

	Actual (PhP million, real 2008)				Forecast (PhP million, real 2008)				
	CY2004	CY2005	CY2006	CY2007	RY2009	RY2010	RY2011	RY2012	RY2013
Distribution Plant	36.9	21.7	14.8	21.5	44.0	74.9	47.3	39.8	74.7
Non-network Plant	4.4	4.3	5.8	7.2	27.1	20.9	14.3	17.4	19.2
Connection plant	1.0	0.7	0.4	0.7	2.3	2.4	3.2	2.5	2.6
Retail plant	9.5	8.2	6.5	12.4	6.4	6.6	6.7	7.1	6.6
Materials & supplies	7.0	-6.2	3.2	-1.4	0.0	0.1	0.3	0.3	0.0
Subtransmission	0.0	0.0	0.0	0.0	0.0	38.0	0.0	28.1	9.0
TOTAL	58.8	28.7	30.7	40.4	79.8	142.9	71.8	95.2	112.1

4.3.2 The breakdown in Table 4.1 is based on details that ILPI submitted on September 01, 2008 in compliance with the Commission's directive dated August 11, 2008. However, in this later submission, the expenditure forecast for 2013 was revised upwards. Since there is no justification for this upward revision, the ERC has used the originally submitted 2013 figures.

4.3.3 ILPI also provided a further breakdown of their forecast capital expenditure program into the following categories, as presented in Table 4.2.

- (a) Growth projects are for capital projects required to accommodate increased electricity demand or new connections.
- (b) Renewal projects are those to replace existing assets where it is no longer economically feasible to maintain the assets, or where technological obsolescence forces their replacement.
- (c) Refurbishment projects are to extend asset serviceability to beyond standard lives.
- (d) Non-network capital expenditure relates to expenditure on non-network assets.
- (e) Major projects are those for which expenditure will exceed the lesser of 30% of the total capital expenditure forecast for a Regulatory Year, or PhP50Million.

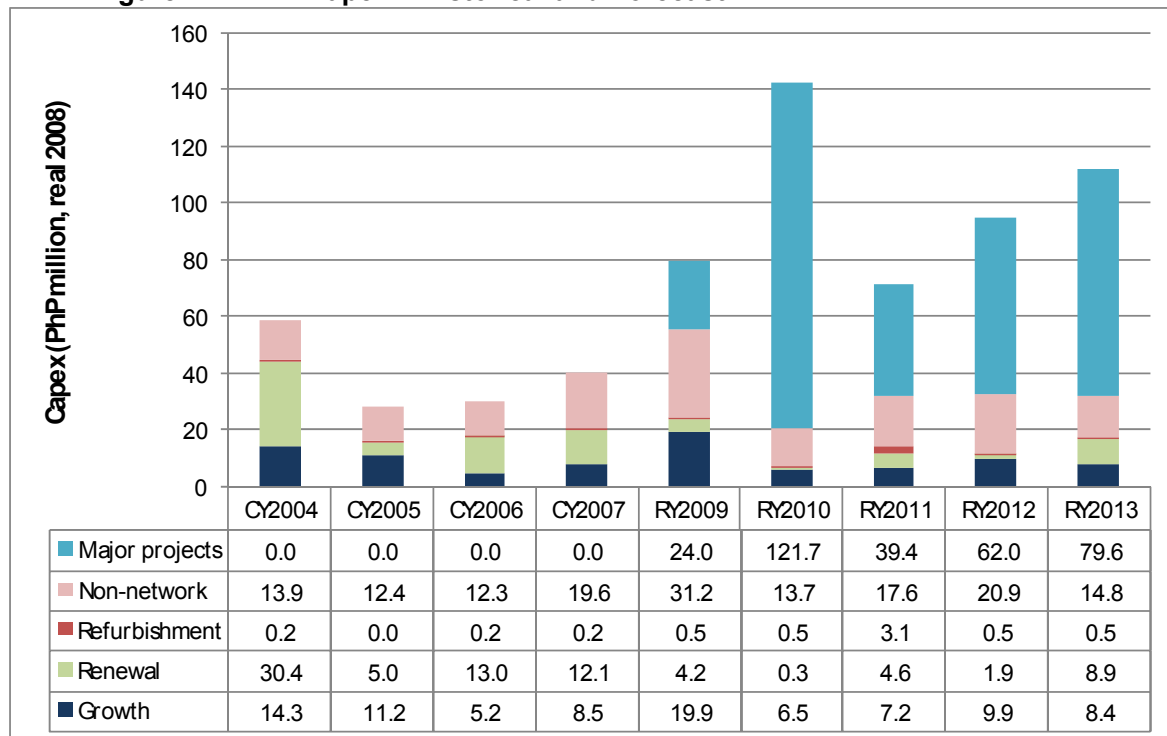
²⁰ Plus an allowance for working capital, as discussed in section 7.6

Table 4.2 : Breakdown of Forecast Capital Expenditure (PhP Million, 2008 real)

	CY2004	CY2005	CY2006	CY2007	RY2009	RY2010	RY2011	RY2012	RY2013
Growth	14.3	11.2	5.2	8.5	19.9	6.5	7.2	9.9	8.4
Renewal	30.4	5.0	13.0	12.1	4.2	0.3	4.6	1.9	8.9
Refurbishment	0.2	0.0	0.2	0.2	0.5	0.5	3.1	0.5	0.5
Non-network	13.9	12.4	12.3	19.6	31.2	13.7	17.6	20.9	14.8
Major projects	0.0	0.0	0.0	0.0	24.0	121.7	39.4	62.0	79.6
TOTAL	58.8	28.6	30.7	40.4	79.8	142.7	71.9	95.2	112.2

4.3.4 In Figure 4.1, the ILPI capital expenditure information is graphically represented in real 2008 values.

Figure 4.1 - ILPI Capex – Historical and Forecast



Note : Given the large overlap in the CY 2008 and RY 2009 values, no 2008 figures are indicated.

4.3.5 Examination of Figure 4.1 indicates that ILPI's forecast total capital expenditure is substantially higher than its adjusted historic expenditure, which is mainly due to the inclusion of major projects in the forecast. There were no major projects included in the broken down historic capital expenditure figures, even though ILPI substantially completed the construction of a 69 kV tie line between the Pala-O and Kiwalan substations over this period.

4.3.6 As a result of large projects not being separately indicated in the historical figures, the forecast residual capital expenditure appears slightly lower than expected when compared with historic figures, except for the notable increase in the RY 2009 forecast.

4.4 Analysis of ILPI's capital expenditure program – General

4.4.1 PB Associates conducted a top-down analysis of ILPI's capital expenditure forecast, including an analysis of the expenditure trends and a review against growth-driven expenditure ratios. This is discussed in the Expenditure Review Report.

4.4.2 The main findings were as follows:

- As noted above, the capital expenditure trends show significant increases planned for the Second Regulatory Period, mainly as a result of the substantial portion of major project included.
- A large proportion of residual capital expenditure appears to have been lumped with the major projects category. PB Associates has not been able to fully resolve the problem with project definitions.

4.4.3 ILPI advised that for their capital expenditure forecasts in the Second Regulatory Period, PB included the cost of labor on projects. Historically, this has not been the case and for trend analysis purposes, adjustments therefore have to be made. (PB Associates made the required adjustments in their Expenditure Review Report.)

4.5 Analysis of ILPI's capital expenditure program – Significant projects

4.5.1 ILPI submitted details of seven (7) significant projects in their Revenue Application. A summary of the projects is as follows:

- Luinab 20/25 MVA Substation;
- Zamora 5 MVA Substation;
- Acquisition of TransCo Subtransmission Assets;
- ILPI 69 kV Tie Lines;
- Kiwalan Switching Station;
- Power Substation Rehabilitation; and
- Rehabilitation of Acquired TransCo Subtransmission Assets.

4.5.2 Each of the major projects was separately reviewed by PB Associates, in order to provide an assessment whether the project is required, efficient and whether the proposed project timing is appropriate. Independent cost estimates were also prepared to verify the reasonableness of the ILPI estimates. Their findings are provided in the Expenditure Review Report, with more details provided on individual projects where discrepancies or unusual factors were found.

4.5.3 PB Associates' recommendations with regard to the significant projects can be summarized as follows:

- ILPI is proposing to construct a new 69/13.8 kV substation at Luinab. This is recommended for approval as it will relieve the existing very high utilization of ILPI's power transformers. It is also suggested that the capacity of the power transformer be increased from 20/25 MVA to 20/30 MVA as the increased forced air capacity would be needed in the event of an n-1 contingency arising. A minor adjustment to ILPI's estimated cost was made to provide for this.

- ILPI is proposing to construct a small 5 MVA substation at Zamora using an old semi-retired transformer. This is not recommended for approval, since PB Associates believes this to be an “opportunistic” proposal that is not consistent with an optimal network development plan. The cost of this development is considered high for the additional transformer capacity provided.
- ILPI has proposed the rehabilitation of its existing two power substations and this is recommended for approval, particularly in respect of the Pala-O substation, which was constructed using second hand equipment and is in poor condition. It is further recommended that an allowance be made in this project for the replacement of the existing Pala-O transformer.
- ILPI proposed the construction of two (2) additional 69 kV tie lines, which it believes will improve the security of supply to customers. Since the existing 69 kV TransCo lines and ILPI’s existing 69 kV tie line provide a level of security consistent with the n-1 criteria specified in Table D1 of the RDWR, these projects are not recommended for approval.
- In general PB Associates recommends that none of the sub-transmissions acquisitions and associated projects proposed by ILPI should be approved. The ERC notes that these acquisitions have proved problematic when viewed from a distribution price-setting perspective, not only for the ILPI revenue application. This is further addressed in Section 4.9. Besides the acquisitions themselves, related projects in this category are:
 - Construction of a new 69 kV switching station that would ensure that directly connected customers would be connected to the network through a circuit breaker.
 - Rehabilitation of the sub-transmission assets that ILPI intends to purchase from TransCo.

4.6 Analysis of ILPI’s capital expenditure program – residual expenditure

4.6.1 PB Associates reviewed the proposed residual network and general plant expenditure, including the minor projects listed by ILPI. In general, PB Associates agree with ILPI’s proposal, but made the following comments:

- The high level of residual capital expenditure in CY 2004 was largely due to renewal expenditure. Expenditure on poles towers and structures, overhead conductors and devices and distribution transformers was between two and four times the level in the following two years. PB Associates assumed that this was due to the completion of a one-off major project, and therefore, in using the historic capital expenditure as a basis for forecasting the appropriate level of underlying residual expenditure, has reduced the real expenditure in CY 2004 to the average level of residual expenditure over the following two (2) years.
- The high level of residual capital expenditure in CY 2007 was due to the high costs of pole renewals and high growth related expenditures on poles and conductors. PB Associates note that the 69 kV tie-line was constructed over this time and note that this expenditure has not been separately reported as a major project. To allow for this, PB Associates has reduced the level of expenditure to the average level of residual capital expenditure over the previous two (2) years for comparative purposes.

- The forecast high level of residual capital expenditure in RY 2009 is mainly due to growth related expenditure on vehicles, IT equipment and miscellaneous equipment. While ILPI has submitted supporting documentation, PB Associates note that it did not have sufficient information to assess the merit of each of the expenditure items on a case by case basis. Of the PhP6 Million growth related residual capital expenditure on miscellaneous equipment in RY 2009, only PhP0.5 Million is explained. The additional expenditure on vehicles and IT equipment seems reasonable.

4.6.2 On this basis, PB Associates recommend that the residual capital expenditure forecast by ILPI for RY 2009 be reduced by the unexplained PhP5.5 Million and that residual capital expenditure in years RY 2010-13 be set at the average adjusted historic residual capital expenditure over RY 2005-06, or PhP34.85 Million per annum. While it could be argued that the approach PB Associates used to determine the recommended residual capital expenditure is not particularly rigorous, given the inconsistencies in the information provided to them PB Associates note that a more in-depth analysis was not possible. PB Associates also note that a significant amount of the residual reliability improvement expenditure for which information was provided is discretionary and that this would provide ILPI with some ability to reallocate expenditure to less discretionary line items, should this prove necessary.

4.7 Expenditure program proposed by PB Associates

- 4.7.1 Based on their analysis, PB Associates recommend that ILPI's proposed capital expenditure program for the Second Regulatory Period should be amended as summarized in Table 4.3.
- 4.7.2 The figures indicated by PB Associates for the original application varies slightly from that submitted by ILPI (and used by the ERC). The reason for this variance is not clear. This variance however does not affect PB Associates' recommendations for changes to the proposed expenditure levels.

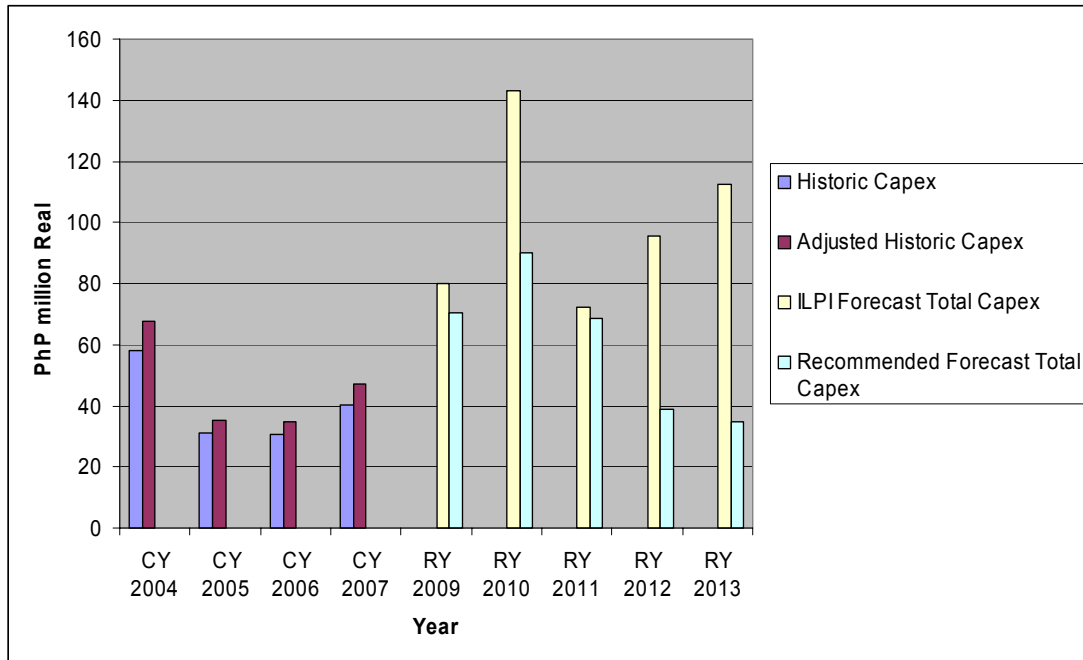
Table 4.3 : ILPI Forecast Capital Expenditure for the Second Regulatory Period – PB Associates Recommendation (PhP Million, real 2008)

	RY 2009	RY 2010	RY 2011	RY 2012	RY 2013
Forecast Capex (Revenue Application)	79.86	142.94	72.33	95.57	112.58
Recommended Adjustments					
Luinab Substation Transformer Capacity		0.91			
Deletion of Zamora Substation			(14.44)		
Deletion of TransCo Asset Purchase		(37.96)		(28.13)	(9.04)
Deletion of 69 kV Tie Lines				(14.86)	(15.82)
Deletion of Kiwalan Switching Station					(37.81)
Rehabilitation of Power Substations	(3.94)	(10.05)	33.77	3.94	
Deletion of TransCo Asset Rehabilitations			(5.69)		(7.18)
Residual Capex Adjustment	(5.50)	(5.61)	(17.35)	(17.72)	(7.88)
Recommended Capex	70.42	90.23	68.62	38.80	34.85

- 4.7.3 In Figure 4.3, a graphical comparison is provided of the capital expenditure program proposed by ILPI in their Revenue Application, and PB Associates' recommended

figures. A substantial reduction in the overall expenditure level submitted by ILPI is proposed – mainly as a result of the omission of the sub-transmission acquisitions and associated projects.

Figure 4.3 : Comparison of Capital Expenditure Forecasts



Source: PB Associates

4.8 ERC Draft Determination on the Capital Expenditure Program

4.8.1 The ERC accepts the recommendations made by PB Associates based on their review and analysis of ILPI’s proposed capital expenditure program for the Second Regulatory Period and the 2009 regulatory year. The rationale provided for the expenditure allowance is sound, as are the reasons for the suggested reductions from the ILPI proposal. The suggested expenditure program is considered efficient and would provide sustainable investment levels while avoiding unnecessary expenses or undue upward price pressure.

4.8.2 Given the small discrepancy in the PB Associates’ figures used to indicate ILPI’s initial application (see Paragraph 4.7.2), the ERC’s final recommendation differs slightly from that of PB Associates.

4.8.3 The ERC’s draft determination on the capital expenditure program for the Second Regulatory Period and the 2009 regulatory year is provided in Table 4.4. A more detailed breakdown is provided in Appendix A.

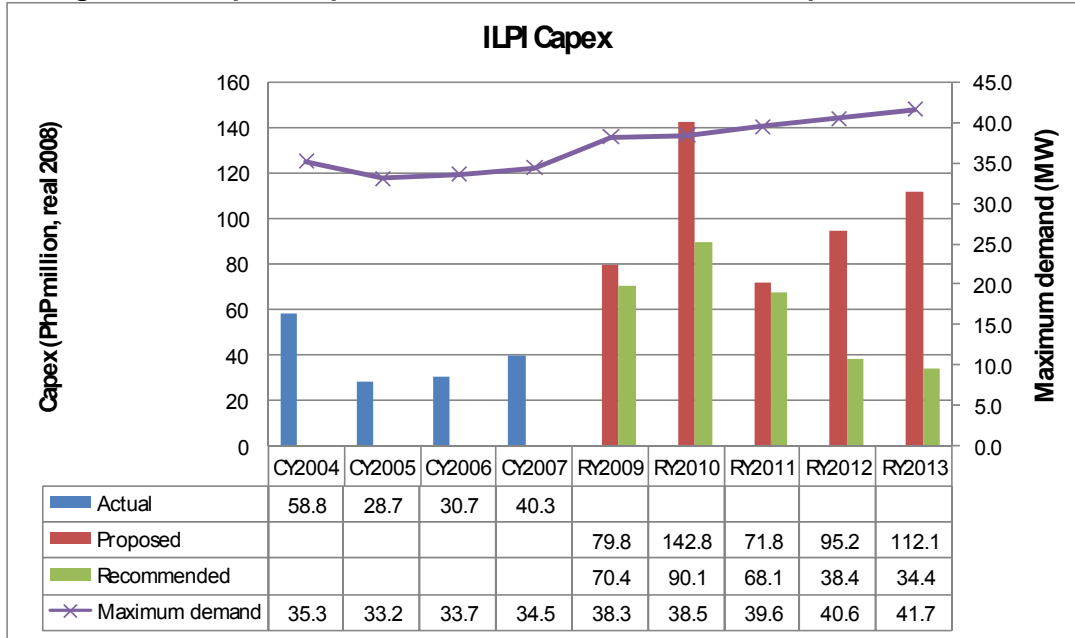
Table 4.4 : ERC Draft Determination on ILPI’s Capital Expenditure Program (PhP thousand)

	RY2009	RY2010	RY2011	RY2012	RY2013	TOTAL
Nominal values	73,674	100,990	79,600	46,441	43,010	270,041
Real values (2008)	70,374	90,113	68,131	38,424	34,415	231,083
Nominal values, including CWIP factor	75,086	103,641	82,212	47,754	43,467	277,074

Note: The total is excluding Regulatory Year 2009.

4.8.4 In Figure 4.4, the ERC’s allowed capital expenditure is compared with ILPI’s Revenue Application. By way of illustrating the need for increased capital expenditure, as a key driver for expenditure, the historical and forecast maximum demand, as accepted by the ERC²¹ is also included.

Figure 4.4: Capital Expenditure Trend – Historical and Proposed



Source: PB Associates, ERC analysis

4.9 Acquired sub-transmission assets

4.9.1 In the recommended capital expenditure program above, ILPI’s proposals to include sub-transmission assets from TransCo, as well as associated projects, were excluded. The ERC recognizes that acquiring such assets are allowed in terms of Republic Act No. 9136 (EPIRA) and that the RDWR makes provision for their inclusion as part of Regulated Distribution Assets. However, during the course of its review of the revenue applications for the Second Entry Group, several problematic issues related to the acquisition of these assets became apparent:

- In some instances, acquired sub-transmission assets are not used only to feed directly connected customers or bulk supply assets within the franchise area of the Regulated Entity applying to acquire the asset, but also feed other bulk consumers such as electric cooperatives. If full agreement can be reached with these bulk consumers on the manner in which the assets will be acquired and shared, and the associated costs would be recovered, this will not pose a problem. However, it is not clear that such agreements have in all instances been reached.
- Including the consumption of newly acquired bulk supply consumers into the overall distribution consumption, generally has the effect of substantially reducing the indicated maximum average prices (MAP) for the Second Regulatory Period²². While this is ostensibly a positive outcome for consumers, it distorts the reality that will be faced by especially the smaller consumers, which are mainly residential and

²¹ See discussion in section 3.5

²² This is a logical outcome when the acquisition of these assets contributes proportionally less to the overall expenditure than to consumption.

small commercial. Regulated Entities are required to convert the MAP into distribution rates that appropriately reflect the contribution of the various customer classes to the utility cost and also reflect the proportion of assets used to provide the service to each class. Since the assets and costs involved in providing services to direct-connect high voltage customers are proportionally considerably less than for low-voltage customers, the appropriate distribution rates for the latter group is inevitably higher. These rates (for low voltage consumers) will also be higher than that indicated by the average rate, or MAP.

As a result, when a Regulated Entity includes the bulk supply consumption in its price modeling, it would appear that the average prices may only be moderately increasing, or reducing in real terms, but this is not the situation that will be faced by the vast majority of its customers. Conversely, bulk consumers are likely to experience even lower rates than that indicated by the MAP. Given that the actual determination of the distribution rates will only occur after the MAP has been set, this distortive effect makes an effective analysis by the ERC of the impact of the price-setting on consumers problematic.

- In some instances, sub-transmission assets may be acquired that are in excess to the requirements of Regulated Entities – providing security or capacity levels that would have led to assets being optimized out under an ODRC asset valuation.

4.9.2 In view of these issues, the ERC has decided not to include acquired sub-transmission assets as part of the revenue allowed for the Second Regulatory Period for the Second Entry Group. The ERC did not consider this in the application because there is no certainty when these assets will be acquired and has therefore decided to exclude all such acquisitions from the current price-setting arrangements.

- There is a considerable uncertainty surrounding the exact dates at which the sub-transmission assets will be acquired and therefore for which Regulatory Year(s) the expenditure should be included. If this expenditure is included too early, this would result in consumers simultaneously contributing to a return on the same assets to a Regulated Entity and to Transco.

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5. OPERATING AND MAINTENANCE EXPENDITURE FORECASTS

5.1 Approach to operating & maintenance expenditure forecasts

- 5.1.1 Section 4.13 of the RDWR specifies the requirements for the operating and maintenance expenditure forecasts required from Regulated Entities. These forecasts are to be justified in terms of why they are necessary and of reasonable magnitude.
- 5.1.2 ILPI submitted its proposed operating and maintenance expenditure for the Second Regulatory Period as part of its Revenue Application.
- 5.1.3 Also included in the Revenue Application is the proposed operating and maintenance expenditure for the 2009 Regulatory Year (April 1, 2008 to March 30, 2009). Under the current regulatory arrangements, there is no provision for the ERC to review any operating and maintenance expenditure subsequent to the start of 2008²³. Since ILPI will be entering PBR at the start of the Second Regulatory Period three months into the 2009 calendar year, the expenditure over the period January 2008 to March 2009 had to be reviewed as part of the Revenue Application and the ERC has therefore decided to include ILPI's capital expenditure program for the 2009 regulatory year as part of its review of the expenditure program for the Second Regulatory Period. The Regulated Entities were therefore required to submit details of this program as part of their Revenue Applications.
- 5.1.4 In terms of Section 4.13.4, the ERC must retain a Regulatory Reset Expert (or Experts) to review the operating and maintenance expenditure forecasts for a Regulated Distribution System, as well as the supporting information. The ERC appointed Parsons Brinckerhoff Associates (PB Associates) for this purpose.
- 5.1.5 The findings and recommendations of PB Associates with regard to the operating and maintenance expenditure forecasts submitted by ILPI are included in the Expenditure Review Report.²⁴ This was analyzed by the ERC and forms the basis of the operating and maintenance expenditure forecasts approved by the ERC, as described below. Since the Expenditure Review Report is available for public review, only the main findings are repeated below.

5.2 Purpose of the operating and maintenance expenditure program

- 5.2.1 Operating and maintenance expenditure is critical to the sustained reliable and safe operation of a distribution network. If operating and maintenance expenditure is at insufficient levels, it leads to deterioration of operating standards and of the condition of network assets – affecting the reliability of service to consumers. Under-expenditure also affects the ability of distribution utilities to plan in advance to cater for load growth or changing consumer requirements and will, in the long run, also increase the required capital expenditure on network assets, to replace assets that have not been well maintained.
- 5.2.2 On the other hand, excessive operating and maintenance expenditure cause upwards price-pressure which is not balanced by commensurate service improvements or value to consumers. It is the goal of the ERC to allow an efficient balance in operating and

²³ This is because no more rate cases will be filed for the Second Entry Group under the current return-on-rate-base form of regulation.

²⁴ Supra note 19

maintenance expenditure – to ensure that acceptable service standards are maintained, while keeping expenditure at the minimum levels required to achieve this goal.

5.2.3 From a regulatory perspective, the approved operating and maintenance expenditure forecasts is one of the building blocks for determining the allowed revenue requirement for Regulated Entities. The approved operating and maintenance expenditure is therefore directly recovered from customers as part of their distribution wheeling rates.

5.3 Operating and maintenance expenditure proposed by ILPI

5.3.1 ILPI's historical operating and maintenance expenditure and the forecast expenditure as submitted in its Revenue Application are shown in Table 5.1. The expenditure figures are in nominal values for the year indicated. It should be noted that the figures up to 2008 are for calendar years, while those from 2009 on are for regulatory years.

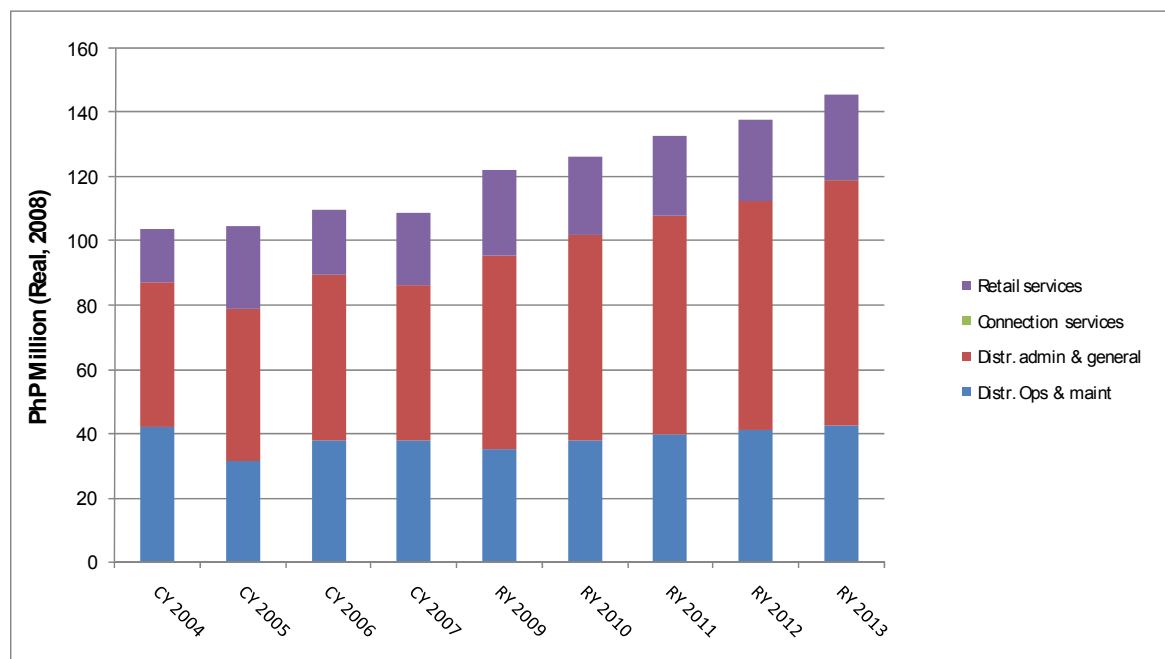
Table 5.1 : ILPI Application for Operating and Maintenance Expenditure

OPEX Category	Actual (nominal in PhP Million)				Forecast (Nominal, in PhP Million)				
	CY 2005	CY 2006	CY 2007	CY 2008	RY 2009	RY 2010	RY 2011	RY 2012	RY 2013
Distribution Opex	27.55	35.31	36.28	35.04	9.15	35.79	39.90	43.38	46.43
Regulated Retail Services	22.90	19.00	21.52	27.48	6.19	27.29	26.24	27.38	29.06
Administrative and General	41.55	47.80	46.21	57.87	15.12	61.38	67.70	74.65	80.78
Total Opex	92.00	102.11	104.01	120.39	30.46	124.46	133.84	145.41	156.27

Note : The full year actual figure for 2008 was not available at the time of the application and may differ slightly from that indicated above.

5.3.2 In Figure 5.1, the ILPI operating & maintenance expenditure information is graphically represented, in real (August 2008) values. Given the 9-month overlap between calendar year 2008 and regulatory year 2009, to avoid distorting the trend, no 2008 figure is presented.

Figure 5.1 : ILPI Proposed Operating & Maintenance Expenditure (real)



5.3.3 ILPI is forecasting considerable increases in its operating and maintenance expenditure over the Second Regulatory Period, mainly resulting from increased administrative and general expenses.

5.4 Analysis of operating and maintenance expenditure - methodology

5.4.1 PB Associates' review of ILPI's operating and maintenance expenditure forecasts is discussed in detail in the Expenditure Review Report. They assessed ILPI's proposals for prudence and cost efficiency using the following approach:

- Determine the base year operational expenditure on a cost category basis;
- Confirm that the base year opex is efficient;
- Identify opex cost drivers and the impact of efficiency initiatives;
- Project the base year opex forward for each year of the regulatory period, taking into account projected changes in the cost drivers and the impact of any efficiency initiatives;
- Compare ILPI's base forecasts with the PB Associates model forecasts and test for relative efficiency;
- Assess each component of the additional expenditures individually, compare them to ILPI's forecast expenditures and develop recommended allowances;
- Combine the recommended base opex forecasts and additional expenditure recommendations to obtain the total recommended annual opex forecasts; and
- Confirm the relative efficiency of the resulting recommended total opex forecasts by developing high level indicators.

5.5 Analysis of the base operating and maintenance expenditure

5.5.1 PB Associates reports that ILPI does not benchmark well against the first and second entry point utilities in terms of both adjusted opex per kWh and staff numbers (measured in terms of customers per staff member). The summary of the benchmarking results is given in Table 5.2.

5.5.2 The 2006 operating and maintenance expenditure levels were assessed by PB Associates to be efficient and suitable to use as base year in assessing the future operating and maintenance expenditure.

The key drivers affecting ILPI's proposed operating and maintenance expenditure are:

- size of the asset base;
- number of customer connections;
- employee numbers and labor costs; and
- material prices.²⁵

5.5.3 PB Associates assessed each of these key drivers and found it necessary to make adjustments in each of the main expenditure categories, especially with regard to consumer accounts and administration & general expenditure. This is mainly to reflect better economies of scale that are possible with increased customer numbers and efficiency gains possible through improved data management processes. PB Associates assumed that material costs will remain constant in real terms but that labor costs will go down at 1% per year in real terms.

²⁵ This impacts on the cost of consumables used for maintenance works

Table 5.2 : Benchmark Data and Normalized Benchmark

	Second Entry Point (CY 2007)			First Entry Point (RY 2008) ¹		
	CLPC	ILPI	ILPI	CEPALCO	DECORP	MERALCO
Data						
Energy Sales (GWh)	117.5	175.7 ²	238.2	686.3	219.4	26,242.5
Customers	27,966	44,357	58,551	109,672	83,224	4,416,999
ORC (PhP million)	682.06	791.71	918.50	2,966.51	1,347.78	155,257.93
Total Opex (PhP million)	71.91	108.67	57.95			
Adjustment (PhP million)	(2.90)	(6.74)	(5.76)			
Adjusted Opex (PhP million)	69.01	101.93	52.19	217.19	107.08	11,496.72
Total Staff	48	161	69			
Admin Staff	21	71	32			
Normalized Benchmarks						
Adjusted Opex / kWh	0.59	0.58	0.22	0.32	0.49	0.44
Adjusted Opex / ORC	0.10	0.13	0.06	0.07	0.08	0.07
Customers per employee	583	276	849			747
Customers per administration employee	1,332	625	1,830			

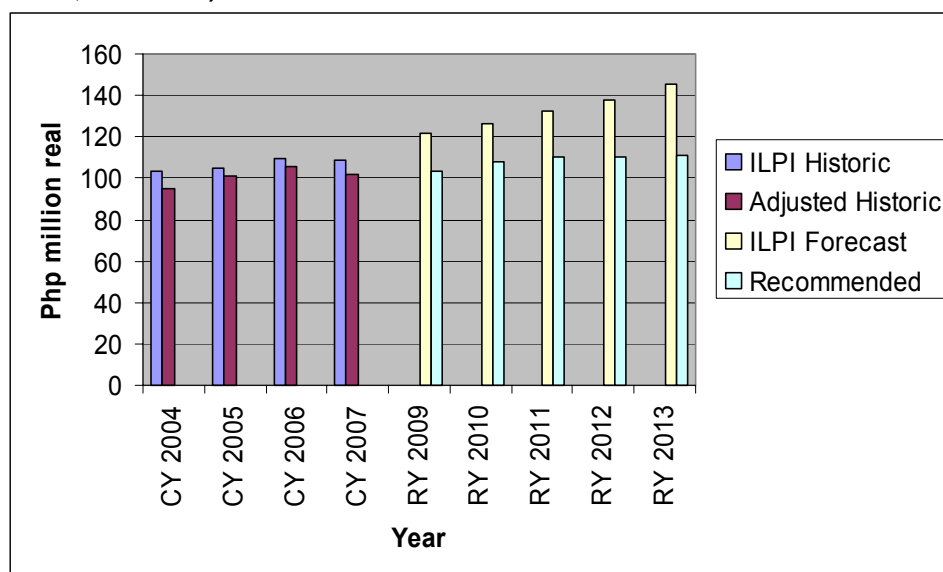
Note 1: The second regulatory period for the first entry point Regulated Entities is from 1 July 2007-30 June 2008.

Note 2: Includes customers connected at 69 kV

Source : PB Associates

- 5.5.4 A graphical comparison of ILPI's forecasts and PB Associates forecast operating expenditure is shown in Figure 5.2. In comparing the forecast OPEX with historic trends it should be remembered that the adjusted historic OPEX is the more valid comparison because it does not include any capital related expenditure.

Figure 5.2 : Comparison between ILPI and PB Recommended OPEX Forecast (PhP Million, real 2008)



Source : PB Associates

- 5.5.5 ILPI's operating expenditure model shows the regulated retail services expenditures is increasing by 6.4% over the second regulatory period and the administrative and general

expenditures is increasing by 19.6% over the same period. However, the PB Associates' model indicates a lower percentage increase of 6% for regulated retail services and - 1.8% for administrative and general expenditure. ILPI forecasted its distribution and connection services expenditure to increase by 13% over the regulatory period whereas PBA's modeling indicates a lower percentage increase of 1.1% over the same period.

5.6 Analysis of the Opex Line items

- 5.6.1 PB Associates' Opex model is based on the assumption of business as usual in forecasting future opex and any changes in future expenditure patterns need to be modeled independently. Hence, ILPI was requested to provide information with regard to any known changes in future expenditure patterns or any one off expenditures included in the base year costs which did not represent business as usual expenditures.
- 5.6.2 PB Associates recommends that the historic and future expenditure for distribution system operations related information technology fluctuates with the purchase of software packages. More specifically, expenditure for this line item in the RY 2007 base year seems to be high due to the acquisition of a SynerGEE Reliability and Protection module, as noted in submissions made by ILPI after the clarificatory meeting. For this reason, we used the average expenditure over CY 2004-07, as the base year expenditure. The magnitude of this downward adjustment is PhP0.17 Million.
- 5.6.3 The miscellaneous expenditure line item in to the distribution system operations category is higher in the base year than any historic (CY 2004-07) or forecasted (RY 2009-13) year. For this reason we used the average expenditure over CY 2004-07, as the base year expenditure. The magnitude of this downward adjustment to the base year is PhP0.58 Million.
- 5.6.4 In ILPI's additional information submission, details were provided that identified the acquisition of Windows Server Operating System and an SQL Server License, at a significant cost of PhP0.55 Million, as a one-off cost found only in the base year of the information technology line item in the administrative and general expenditures category. For this reason we used the average expenditure over CY 2004-07, as the base year expenditure. The magnitude of this downward adjustment to the base year is PhP0.45 Million.

The impact of the aforementioned adjustments on the base year opex is shown in Table 5.3.

Table 5.3: 2007 Opex Adjustments (PhP million, real 2008)

	CY 2007
Adjusted RY 2007 opex (Table 3.3)	101.93
Adjustments	
Distribution System Operations - Information Technology	(0.17)
Distribution System Operations – Miscellaneous Expenditure	(0.58)
Administrative and General – Information Technology	(0.45)
Revised RY 2007 base opex	100.73

- 5.6.5 The 2007 base year opex, incorporating the recommended adjustments, used for modelling future expenditures are as shown in Table 5.4:

Table 5.4: Base 2007 Opex (PhP million, real 2008)

Operational Expenditure Category	CY 2007
Operation	17.44
Maintenance	14.83
Administration and General	47.84
Regulated Retail Services	20.62
Total Operational & Maintenance Expenditure	100.73

Source: PB Associates based on ILPI data, also includes adjustments for the exclusion of capex installation related costs

5.7 Analysis of related business expenditure

5.7.1 ILPI reported no income from or costs associated with activities that it undertakes that involve the Regulated Distribution System and for which it receives external revenue. During the clarificatory meetings, it however, advised that it does engage in such activities, but could not provide broken down data on the income or expenses associated with this. PB Associates recommend that a provision should be made for costs incurred to provide these services, noting that 50% of the profit from such services can be retained by the Regulated Entities.

5.8 Expenditure program proposed by PB Associates

5.8.1 The operating and maintenance expenditure forecasts for the Second Regulatory Period recommended by PB Associates, taking into account their recommended reductions, is presented in Table 5.5.

5.8.2 Included in Table 5.5 are PB Associates' recommended changes to the 2009 Regulatory Year expenditure.

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Table 5.5 : Comparison of ILPI and PB Associates Forecast Base Operational Expenditure (Php million, real 2008)

	RY 2009	RY 2010	RY 2011	RY 2012	RY 2013
Distribution System Operations					
Revenue Application Forecast	19.10	20.23	20.17	20.89	21.74
Model	18.18	19.45	20.17	20.15	20.26
DSOAR Adjustment		-0.19	-0.40	-0.60	-0.81
Recommended Opex	18.18	19.26	19.77	19.55	19.45
Distribution System Maintenance					
Revenue Application Forecast	15.99	17.50	19.44	20.11	20.90
Model	15.46	16.56	17.18	17.19	17.30
DSOAR Adjustment		-0.17	-0.34	-0.52	-0.69
Recommended Opex	15.46	16.39	16.84	16.67	16.61
Regulated Retail Services					
Revenue Application Forecast	26.76	24.81	25.01	25.67	26.40
Recommended Opex	21.90	23.72	24.05	24.59	25.15
Administrative & General Expenditure					
Revenue Application Forecast	60.18	64.02	68.18	71.34	76.55
Recommended Opex	47.96	50.11	49.80	49.48	49.20
Totals					
Revenue Application Forecast	122.04	126.56	132.81	138.01	145.58
Recommended Opex	103.51	109.48	110.45	110.29	110.41
Recommended Adjustment	-18.53	-17.08	-22.36	-27.72	-35.17
Percentage Adjustment	-15.2%	-13.5%	-16.8%	-20.1%	-24.2%

Source: PB Associates

5.9 ERC Draft Determination on the operating and maintenance expenditure

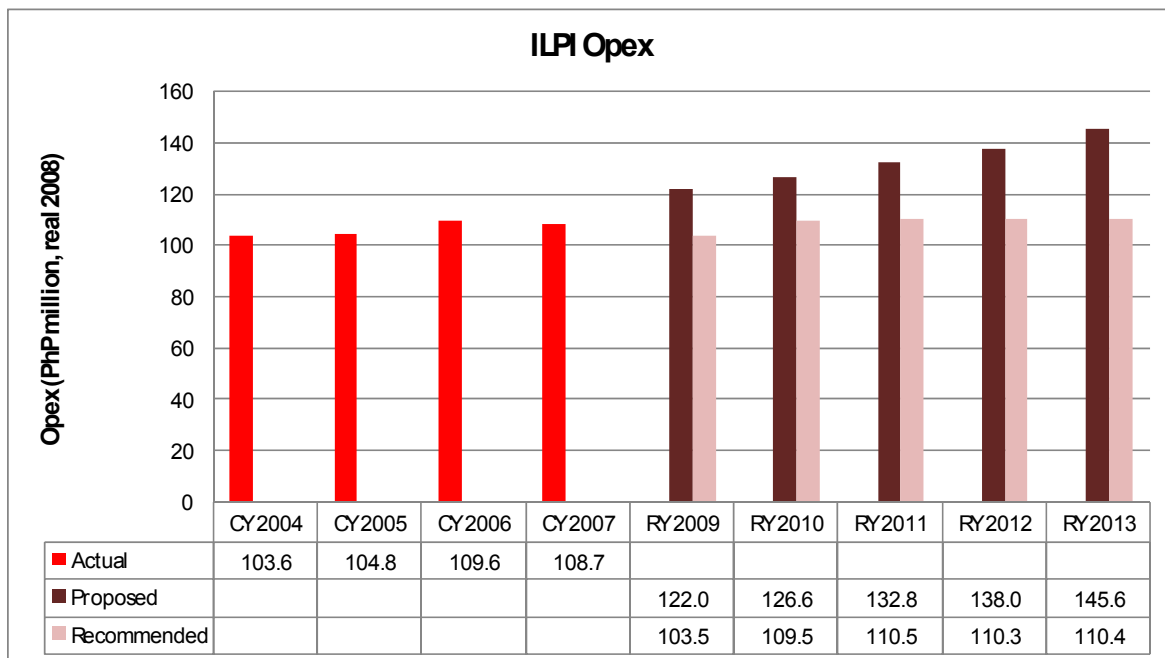
- 5.9.1 The ERC accepts the analysis performed by PB Associates on the ILPI forecast operating and maintenance expenditure, recognizing that this will lead to a substantial reduction in the allowed expenditure when compared with ILPI's application – essentially giving rise to no increases over the Second Regulatory Period, in real terms. The justification for the decreases is however considered sound and reasonable. The ERC also notes with some concern the results from the benchmarking review and accepts that the PB Associates recommendations will go some way to improving ILPI's relative performance.
- 5.9.2 In Figure 5.3, a comparison is provided of ILPI's application for operating and maintenance expenditure during the Second Regulatory Period and the 2007 regulatory year and that accepted by the ERC for the Draft Determination. A further comparison is provided in Figure 5.4, where the historical expenditure levels are also indicated.

Figure 5.3 : Comparison of Operating and Maintenance Expenditure Forecasts



Source : ILPI application, PB Associates and ERC analysis

Figure 5.4 : Historical and Forecast Trends – Operating and Maintenance Expenditure



5.9.3 The ERC’s draft determination for the allowed operating and maintenance expenditure forecasts for the Second Regulatory Period and for the 2009 regulatory year is indicated in Table 5.6. A more detailed breakdown of the approved operating and maintenance expenditure is provided in Appendix B.

Table 5.6 : Draft Determination on Operating and Maintenance Expenditure

PhP (Thousand)	2009	2010	2011	2012	2013	TOTAL
Nominal values	108,385	122,691	129,068	133,304	137,986	523,049
Real values (2006)	103,529	109,476	110,472	110,292	110,412	440,652

Note: The total is excluding Regulatory Year 2009

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6. OTHER TAXES, LEVIES AND DUTIES

6.1 Approach to other taxes, levies and duties expenditure forecasts

- 6.1.1 Section 4.13.2 of the RDWR specifies the requirements for the forecasts required from Regulated Entities with respect to taxes, levies and duties (other than corporate income tax). ILPI submitted its estimates for the taxes, levies and duties (other than corporate income tax) expenditure for the Second Regulatory Period as part of its Revenue Application.
- 6.1.2 Also included in the Revenue Application is the proposed expenditure on taxes, levies and duties (other than corporate income tax) for the 2009 Regulatory Year (April 1, 2008 to March 30, 2009). Under the current regulatory arrangements, there is no provision for the ERC to review any expenditure subsequent to the start of 2008²⁶. Since ILPI will be entering PBR at the start of the Second Regulatory Period three months into the 2009 calendar year, the expenditure over the period January 2008 to March 2009 had to be reviewed as part of the Revenue Application and the ERC has therefore decided to include ILPI's expenditure program for the 2009 regulatory year as part of its review of the expenditure program for the Second Regulatory Period. The Regulated Entities were therefore required to submit details of this program as part of their Revenue Applications.
- 6.1.3 In terms of Section 4.13.4 of the RDWR, the ERC must retain a Regulatory Reset Expert (or Experts) to review the operating and maintenance expenditure forecasts for a Regulated Distribution System, as well as the supporting information. The ERC included in this the review of the forecast expenditure on taxes, levies and duties (other than corporate income tax) carried out by PB Associates.
- 6.1.4 The findings and recommendations of PB Associates with regard to the forecast expenditure on taxes, levies and duties (other than corporate income tax) as submitted by ILPI are included in the Expenditure Review Report.²⁷ This was analyzed by the ERC and forms the basis of the taxes, levies and duties (other than corporate income tax) expenditure forecasts approved by the ERC, as described below. Since the Expenditure Review Report is available for public review, only the main findings are repeated below.

6.2 Purpose of the taxes, levies and duties expenditure

- 6.2.1 As part of its normal operations, a distribution utility has certain obligations to pay various license fees, levies, duties and other taxes (excluding corporate income tax) to various authorities and/or industry bodies. Failure to incur these expenses would lead to severe penalties and possible suspension of operations.
- 6.2.2 Expenditure on taxes, levies and duties (other than corporate income tax) constitutes one of the building blocks on which the calculation of the annual revenue requirement for Regulated Entities is based and therefore has a direct impact on the price cap determined under PBR. The approved license fees, levies, duties and other taxes (excluding corporate income tax) expenditure is therefore directly recovered from customers as part of their distribution tariffs.

²⁶ This is because no more rate cases will be filed for the Second Entry Group under the current return-on-rate-base form of regulation.

²⁷ Supra note 19

6.3 License fees, levies, duties and other taxes expenditure proposed by ILPI

6.3.1 ILPI's historical expenditure on license fees, levies, duties and other taxes (excluding corporate income tax) and the forecast expenditure as submitted in its Revenue Application are shown in Table 6.1.

Table 6.1: ILPI Application for License Fees, Levies, Duties and Other Taxes Expenditure (Figures in the original Revenue Application)

Regulatory Year	2009	2010	2011	2012	2013
Taxes					
Business Operation Permits		10,299	10,737	11,109	11,485
Corporate Community Tax		11,767	12,268	12,691	13,122
Real property Tax	1,123,324	735,795	767,066	793,529	820,509
Other		443,933	462,800	478,766	495,044
SUBTOTAL	1,123,324	1,201,794	1,252,871	1,296,095	1,340,160
Levies					
Regulatory Reset Expert Fees		1,646,560	630,939	208,427	
Duties					
Total	1,123,324	2,848,354	1,883,810	1,504,522	1,340,160

6.3.2 The ILPI application, in real figures, is indicated in Table 6.2, together with historical expenditure on license fees, levies, duties and other taxes.

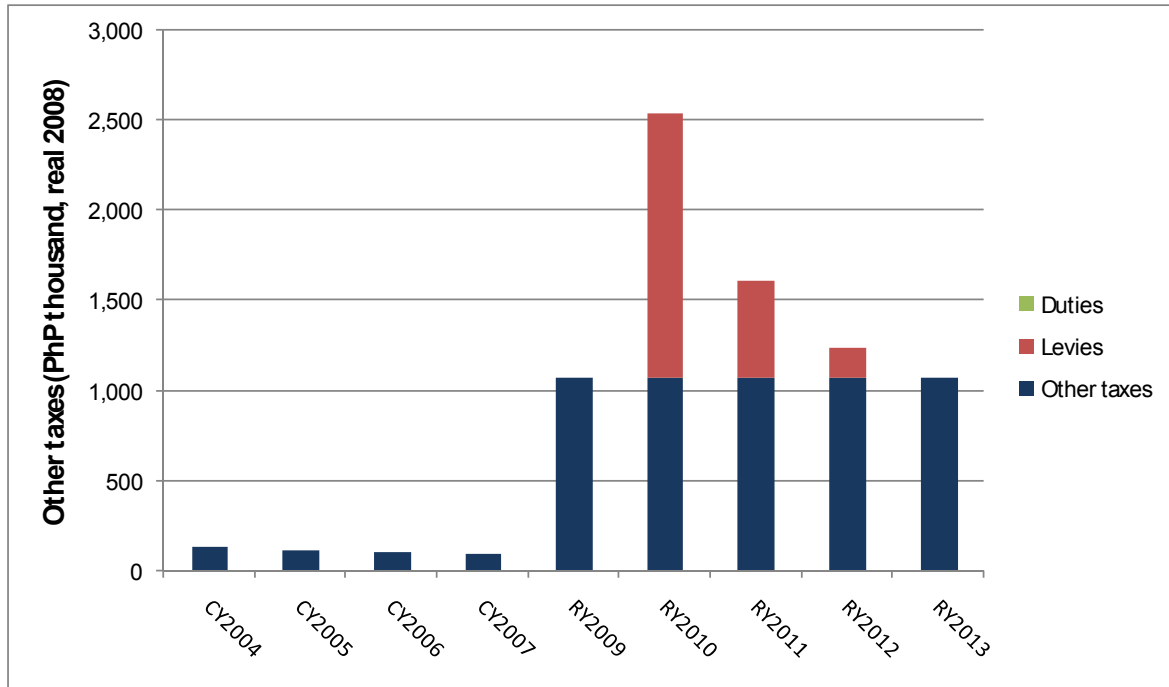
Table 6.2: ILPI Application for License Fees, Levies, Duties and Other Taxes Expenditure (Figures revised by using the ERC financial indices forecasts)

Category	Actual (Real, in 2007, Million PhP)				Forecasts (Real, in 2007, Million PhP)				
	CY2004	CY2005	CY2006	CY2007	RY2009	RY2010	RY2011	RY2012	RY2013
Other Taxes	133	116	103	97	1,073	1,072	1,072	1,072	1,072
Levies	0	0	0	0	0	1,469	540	172	0
Duties	0	0	0	0	0	0	0	0	0
Total	133	116	103	97	1,073	2,541	1,612	1,244	1,072

Note: Given the 9-month overlap between the 2008 calendar year and the 2009 regulatory year, to avoid distorting the trend, no 2008 figure was included in the table.

6.3.3 In Figure 6.1, the ILPI forecast expenditure on license fees, levies, duties and other taxes is graphically represented, in real (August 2008) values. From Figure 6.1, ILPI is clearly anticipating very substantial increases in license fees, levies, duties and other taxes expenses during the Second Regulatory Period. The high increase in Taxes for 2010 is attributable to the forecast payment of the regulatory reset expert fees, as provided in the RDWR.

Figure 6.1 : ILPI proposed Expenditure on License Fees, Levies, Duties and Other Taxes



6.4 Analysis of license fees, levies, duties and other taxes expenditure

6.4.1 PB Associates’ review of ILPI’s forecasts for license fees, levies, duties and other taxes during the Second Regulatory Period is discussed in detail in the Expenditure Review Report. They suggest the following reduction to ILPI’s application:

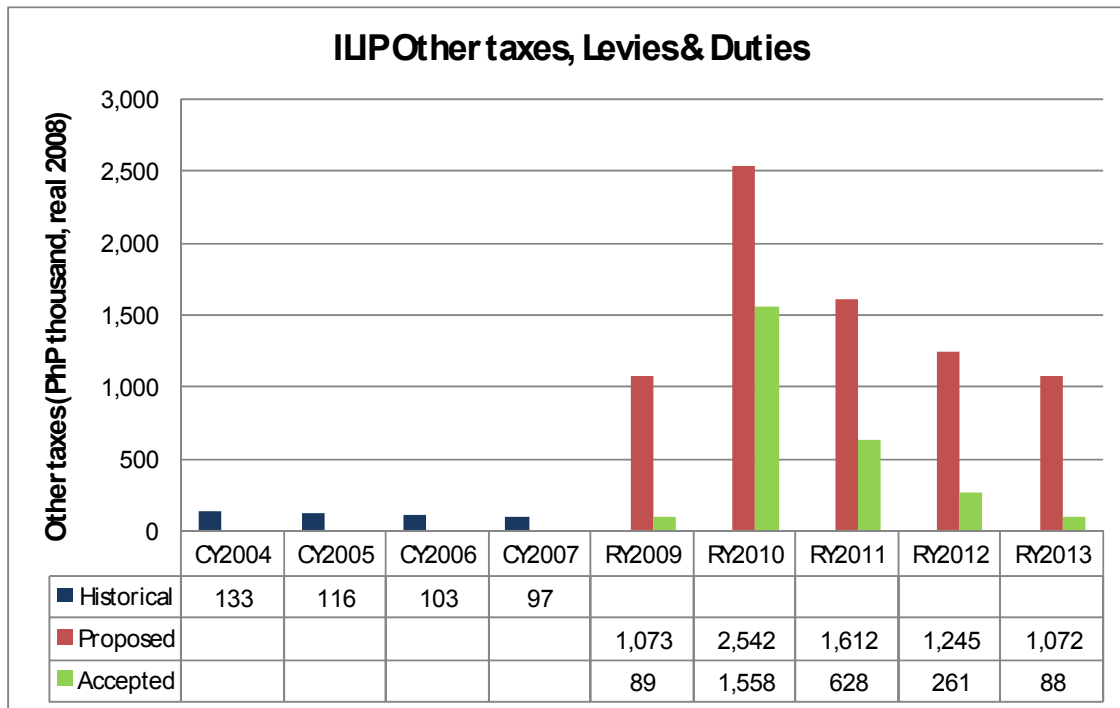
- The component of provision of real property taxes on the machineries as well as the proposed Luinab building should be excluded from the annual revenue requirement because insufficient information has been provided to satisfy us of ILPI’s liability for these payments. Only taxes for which ILPI’s liability has been legally established and confirmed at the time of this expenditure review should be included in the revenue requirement. Taxes for which ILPI’s liability has not been confirmed or is in dispute before the courts should not be included. In the event that ILPI’s liability for these taxes is legally confirmed or that ILPI becomes liable for new taxes that are not included in the annual revenue requirement, Article XI of the RDWR allows for unexpected tax liabilities imposed during the Second Regulatory Period by means of a “Tax Event Pass Through”.

6.5 Draft determination on license fees, levies, duties and other taxes

6.5.1 The ERC accepts PB Associates’ recommendations with regard to ILPI’s forecasts for license fees, levies, duties and other taxes.

6.5.2 In Figure 6.2, the historical and forecast trend is illustrated, based on the ERC’s allowance for license fees, levies, duties and other taxes expenditure during 2007 and the Second Regulatory Period.

Figure 6.2 : Comparison of License Fees, Levies, Duties and Other Taxes trends



6.5.3 In Table 6.3, the ERC's Draft Determination for the forecast license fees, levies, duties and other taxes (other than corporate income tax) for the Second Regulatory Period and the 2007 Regulatory Year is presented. A more detailed breakdown of the allowed expenditure is provided in Appendix C.

Table 6.3 : Draft Determination on License Fees, Levies, Duties and Other Taxes Expenditure

PhP (Thousand)	RY2009	RY2010	RY2011	RY2012	RY2013	TOTAL
Nominal values	93,174	1,745,580	734,167	315,218	110,420	2,905,385
Real values (2006)	89,000	1,557,572	628,388	260,803	88,355	2,535,118

Note: The total is excluding Regulatory Year 2009

7. REGULATORY ASSET BASE

7.1 Approach to the RAB

- 7.1.1 The regulatory asset base (RAB) represents the assets used by a Regulated Entity to provide Regulated Distribution Services and covers the Regulated Distribution System assets as well as the Non-system Assets.
- 7.1.2 While it is the intent to separate Distribution Connection Assets from the RAB in the future once Distribution Connection Services are applied in a competitive environment, these assets are presently still included in the RAB.
- 7.1.3 Under PBR, Regulated Entities are entitled to earn a return on the value of their rolled-forward RAB, as part of the annual allowed revenue requirement. The value of the RAB therefore has a direct bearing on the price consumers pay for electricity distribution.

7.2 Opening valuation of the RAB

- 7.2.1 Section 4.8 of the RDWR describes the approach to the opening valuation of the RAB. An optimized depreciated replacement cost (ODRC) valuation methodology is adopted. This method is used to ensure that only those assets that are required to provide efficient distribution services and allows efficient planning and investment in distribution assets are included in the RAB. Assets not meeting these criteria are optimized out.²⁸
- 7.2.2 The ERC opted to appoint a regulatory reset expert to assist it to establish the initial revaluation of the Regulated Entities' RAB, rather than to require them to conduct their own valuation and present this to the ERC. This was in accordance with Clause 4.8.2(b) of the RDWR.
- 7.2.3 PB Associates and Asian Appraisal Company (hereafter jointly referred to as PB Associates) were appointed as the regulatory reset experts to conduct the initial revaluation for ILPI. The results of their valuation are described in the Initial Revaluation Report²⁹ and were accepted by the ERC. These reports were also presented to ILPI, who likewise indicated their acceptance of PB Associates' recommended valuation of the RAB at the Initial Re-valuation Date. Since the Initial Revaluation Report has been separately published and is publicly available, only the key points from this report, as it pertains to the Draft Determination, will be repeated here.
- 7.2.4 The value of the RAB at the Initial Re-valuation Date (December 31, 2007) is presented in Table 7.1. No asset optimization was required for ILPI.
- 7.2.5 As part of the asset valuation project, PB Associates investigated the appropriate standard asset lives for distribution assets and prepared a report to the ERC in this regard³⁰, which was adopted after a consultation process. These asset lives were used as basis for the depreciation of the assets in the RAB, using a straight-line depreciation method.

²⁸ The optimization approach is described in Clause 4.8.6 and Appendix D of the RDWR

²⁹ PB Associates and Asian Appraisal report titled "Asset valuation for Privately Owned Distribution Utilities subject to Performance Based Regulation : Iligan Light and Power Inc, Valuation Date: 31 December, 2007", dated April 2008

³⁰ PB Associates report titled "Standard Asset Lives for Philippines Distribution Utilities", dated August 2006

Table 7.1 : Value of the ILPI RAB at December 31, 2007 (Initial Revaluation Date)

Asset Category	Replacement Cost (PhP)	Optimized Replacement Cost (PhP)	Optimized Depreciated Replacement Cost (PhP)
Distribution assets	491,608,211	491,608,211	312,145,648
Non-system assets	158,665,689	158,665,689	104,418,337
Connection assets	36,713,116	36,713,116	22,242,903
Retail services assets	104,718,200	104,718,200	56,841,591
TOTAL	791,705,216	791,705,216	495,648,479

Source : PB Associates and Asian Appraisal

7.2.6 The calculation of the opening value of the RAB for the Second Regulatory Period (March 30, 2009) is derived as follows:

$$\begin{aligned}
 \text{Opening value of the RAB} &= \text{Value of the RAB at the Initial Revaluation Date} \\
 &\quad \text{minus} \\
 &\quad \text{Depreciation of the initial RAB to March 30 2009} \\
 &\quad \text{plus} \\
 &\quad \text{Inflation of the initial value to a March 2009 basis} \\
 &\quad \text{plus} \\
 &\quad \text{Approved capex for the 2009 regulatory year (RY)} \\
 &\quad \text{minus} \\
 &\quad \text{Depreciation of assets acquired during 2009 (RY)} \\
 &\quad \text{minus} \\
 &\quad \text{Disposal of assets during 2009 (RY)} \\
 &\quad \text{plus} \\
 &\quad \text{CWIP allowance}
 \end{aligned}$$

7.2.7 The depreciation of the initial asset base as well as the assets acquired during 2009 is discussed in Section 7.4. The approved capital expenditure program for 2009 is discussed in Section 4.8. Disposal of assets is as reported by ILPI in the Revenue Application.

7.2.8 The construction work in progress factor (CWIP factor) is described in Section 4.8.9 of the RDWR. This is to compensate Regulated Entities for the investment cost of capital tied up during construction of major projects. During the reset period for the First Entry Group, the ERC conducted a study on the appropriate CWIP factor for typical distribution projects, based on information provided by Regulated Entities and consulted with the Regulated Entities on this. Based on this study, a preliminary CWIP factor was determined by the ERC and was communicated to the First Entry Regulated Entities prior to the filing of their Revenue Applications.³¹ This was further updated for the Final Determination for the First Entry Group and the Regulated Entities in the Second Entry Group were advised to use the same CWIP figures for their Revenue Applications.

³¹ The findings are described in the ERC report titled “Performance Based Regulation of Privately Owned Electricity Distribution Utilities (First Entry Point) : Preliminary Calculation of the Construction Work in Progress Factor that will apply during the Second Regulatory Period”, dated August 23, 2006

Updated information had subsequently been requested from the Second Entry Group, but at the date of preparing this document no further project information was forthcoming. The ERC has therefore decided to adopt the same CWIP factor used for the Final Determination for the First Entry Group, adapted for the WACC used for this Draft Determination. This is indicated in Table 7.2. The CWIP factor only applies to Regulated Distribution Assets and Distribution Connection Assets, and to Non-network structures and improvements.

Table 7.2 : CWIP Factors Adopted for the Draft Determination

Project category	CWIP factor
Substations	4.0%
All other capital projects	2.9%

Source: ERC analysis

7.2.9 Inflation of the initial asset value (Dec. 31, 2007) to the opening value (April 1, 2009) is done using the Philippines inflation rate forecast for the 2008 and 2009 regulatory year adopted by the ERC.

7.3 Draft Determination on the opening value of the RAB

7.3.1 The ERC's Draft Determination of the ILPI RAB opening value is indicated in Table 7.3.

Table 7.3 : Opening Value of the ILPI RAB at March 31, 2009 (PhP Million)

Asset Category	Initial value	Deprec. original base 2007 RY	Inflation of asset base to June 07	Approved Jan 08 to Mar 09 capex	Deprec. of additions	Disposals	CWIP	Opening RAB for 2nd Regulatory Period
Distribution Assets								
Land and structures	14.4	0.0	1.6	0.5	0.0	0.0	0.0	16.5
Substation Equipment	46.8	3.0	4.9	13.6	0.2	0.0	2.5	64.6
Distribution Lines – network	181.3	6.1	19.5	22.5	0.4	0.0	6.3	223.1
Underground distribution network	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3
Line Transformers – Distribution	61.5	3.5	6.5	7.0	0.1	0.0	2.1	73.3
Other	8.2	0.4	0.9	-0.6	0.0	0.0	0.2	8.2
Non-network assets								0.0
Land and structures	58.6	0.6	6.5	4.4	0.0	0.0	0.4	69.2
Furniture, transportation, tools	19.1	2.5	1.9	13.5	0.7	0.0		31.3
Materials, supplies and spares	23.9	0.0	2.7	0.0	0.0	0.0		26.6
Other	2.8	1.0	0.2	6.0	0.6	0.0		7.4
Connection assets								0.0
Overhead connections	22.2	1.3	2.3	3.1	0.1	0.0	0.8	27.1
Underground connections	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-network assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Retail service assets								0.0
Metering	56.8	4.1	5.9	8.3	0.2	0.0	1.7	68.5
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Transferred subtrans. Assets								0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL	495.6	22.5	52.9	78.6	2.3	0.0	14.0	616.03

Source : ILPI application, PBA Valuation, ERC analysis

7.4 Regulatory depreciation

- 7.4.1 The ERC reviewed ILPI's calculations of regulatory depreciation (Schedules A6, E1 and E2 of the Revenue Application) and made some adjustments to consider standard asset lives.
- 7.4.2 For the calculation of the historical cost depreciation of the original assets base at the Initial Re-valuation Date, ILPI's submitted figures were accepted. The purpose of including the historic cost depreciation is to align the depreciation amount used in calculating the corporate income tax building block with the actual depreciation figure used in ILPI's financial statements. It is therefore important to maintain this consistency.
- 7.4.3 The historical cost depreciation of assets acquired during the 2009 regulatory year and the Second Regulatory Period, is assumed to be identical to the regulatory depreciation. This requires ILPI to modify the standard lives used in its financial statements for new assets (acquired after December 2007) to ensure consistency with the regulatory asset lives. Failing this, a divergence between the historical cost depreciation used to calculate the corporate income building block and ILPI's asset depreciation used to determine its actual corporate income tax payments is likely to occur.
- 7.4.4 In Table 7.4, a summary is provided of the regulatory depreciation (ODRC basis) of the ILPI asset base, as calculated by the ERC. The historical cost depreciation is presented in Table 7.5. In terms of the RDWR (Clause 4.10), disposals are included in the depreciation amounts. The forecasts provided by ILPI in their Revenue Application are included below. No income from disposals was forecasted.

Table 7.4 : Summary of ODRC Depreciation of the ILPI RAB (calculated by the ERC) (PhP Millions)

ODRC depreciation	2007	2008	2009	2010	2011
Depreciation of the opening asset base	18.1	20.6	20.6	19.9	19.8
Depreciation of assets acquired Jan 08–Mar 09	2.2	4.5	4.5	4.5	4.5
Depreciation of assets acquired during the 2nd regulatory period	0.0	1.9	5.1	7.2	9.1
Subtotal	20.3	27.0	30.2	31.6	33.4
plus Disposals	0.0	0.0	0.0	0.0	0.0
minus Income from disposals	0.0	0.0	0.0	0.0	0.0
TOTAL	20.3	27.0	30.2	31.6	33.4

Source : ERC analysis

Table 7.5 : Summary of Historical Cost Depreciation of the ILPI RAB (calculated by the ERC) (PhP Millions)

Historical cost depreciation	2007	2008	2009	2010	2011
Depreciation of the opening asset base	15.9	15.3	14.8	14.3	13.9
Depreciation of assets acquired Jan 08–Mar 09	2.2	4.5	4.5	4.5	4.5
Depreciation of assets acquired during the 2nd regulatory period	0.0	1.9	5.1	7.2	9.1
TOTAL	18.1	21.7	24.4	26.0	27.5

7.5 Draft Determination - Rolled forward asset base

- 7.5.1 The ERC's Draft Determination on the value of the rolled-forward asset base for the Second Regulatory Period, as determined through the ERC modeling, is presented in Table 7.6.

Table 7.6: Value of the Rolled Forward Regulatory Asset Base (PhP Thousand)

	2009	2010	2011	2012	2013
Opening Value of RAB		616,036	692,961	745,673	762,272
Depreciation on RAB		27,025	30,207	31,594	33,383
Capital Expenditure		103,641	82,212	47,754	43,467
Change in assets used over regulatory lives		309	707	439	480
Closing Value of RAB	616,036	692,961	745,673	762,272	772,835
Average RAB for the Year	616,036	654,498	719,317	753,972	767,554

Source : ERC analysis and financial model

7.6 Draft Determination on Working capital

- 7.6.1 The RDWR allows Regulated Entities to recover a return on the working capital tied up in the operation of their Regulated Distribution Systems. The ERC conducted a lead/lag study to ascertain the allowance that should be made for such working capital and determined that this is relatively minor.
- 7.6.2 During consultation by the ERC prior to the filing of the Revenue Applications on the appropriate working capital allowance, the Regulated Entities indicated that they have a greater concern about the significant amounts of working capital tied up in their energy purchases, for which they have no recourse to recover. The ERC pointed out that energy purchases is not a Regulated Distribution Service and as such should not be included in the maximum average price-cap for such services. Likewise, working capital on energy purchases should not be recovered in the allowed annual revenue requirement. However, since the ERC recognizes that the current unbundled rate structure does not allow for the recovery of working capital on energy purchases and for the Second Regulatory Period, has therefore approved to include an allowance for capital tied up in energy purchases as part of the working capital for Regulated Distribution Services.
- 7.6.3 In the Final Determination for the First Entry Group, the ERC indicated that given the contractual settlement periods for consumers to pay their electricity bills (which averages around 10 days), and the period that Regulated Entities have to settle their payments for energy and transmission charges (30-35 days on average), there should not be any working capital tied up in energy or transmission service procurement. If customer payment was therefore collected as per the contracted period, there would be a negative net working capital requirement even if customer invoicing is distributed throughout the month.
- 7.6.4 The ERC therefore concluded that it is not appropriate to allow any working capital for energy purchases. It accepts that the Regulated Entities do have a longer debtor settlement period than that contracted and that they therefore would have working capital tied up in energy purchases. However, the ERC believes that late payments should be made subject to penalties to recover this lost working capital, rather than recover this from the distribution (or energy) rates, which would penalize those customers who are paying their accounts within the prescribed time.
- 7.6.5 Further lead/lag information was requested from the Second Entry Group Regulated Entities, but at the date of preparation of this Draft Determination has not been received. The ERC has therefore decided to adopt the same working capital factor that it used for the Final Determination for the First Entry Group. This was set at 3% of the operating and maintenance expenditure allowed.

8. WEIGHTED AVERAGE COST OF CAPITAL

8.1 Purpose of the regulatory WACC

8.1.1 The Regulatory Weighted Average Cost of Capital (WACC) is the rate at which the return on capital (the RAB and working capital) is calculated for inclusion in the allowed revenue requirement. In addition, it is also used in the calculation of the CWIP factor (see Paragraph 7.2.8). It is therefore one of the key parameters to be determined for the Second Regulatory Period.

8.2 Approach to the WACC

8.2.1 During the regulatory reset period for the First Entry Group, the ERC prepared a report³² (the WACC Report) and conducted public consultation on the manner in which the Regulatory WACC for the Second Regulatory Period should be determined. After the consultation, the recommended methodology described in the WACC Report was accepted.

8.2.2 The preliminary WACC figures used in the WACC report was updated by the ERC for the Final Determination of the First Entry Group, based on the economic indices and other parameters at the time of the decision. This resulted in a “vanilla” WACC figure of 12.80%.

8.2.3 The ERC has decided to use the same approach in determining the WACC that it had applied for the Final Determination of the First Entry Group. However, some modifications had to be made to reduce the impact of volatility in some of the base parameters used, to avoid undue volatility in the WACC itself.³³ A full description of the ERC’s determination of the WACC is to be published in an accompanying updated WACC report which will be made available on the ERC website for scrutiny and comment.

8.2.4 This is particularly problematic with respect to the local CPI. Given the historically very low trading volumes in long-term bonds in the Philippines, using the yields on these bonds as an indication of the appropriate risk-free rate in setting the WACC is not considered appropriate. The ERC has therefore to date determined the risk-free rate based on using the US bond rates, adapted for the inflation differential between the USA and the Philippines. However, since the date of the Final Determination for the First Entry Group (August 2007), the Philippines has experienced major variability in the local consumer price index. The ERC has therefore decided to adopt 12-month average CPI figures in determining the inflation differential, rather than the spot-rates applied for previous decisions.

8.2.5 In addition, the ERC has decided to use the Philippines average country risk premium of the last two years rather than the longer term average applied in the past.

³² ERC report titled “*PRELIMINARY CALCULATION OF THE REGULATORY WEIGHTED AVERAGE COST OF CAPITAL THAT WOULD APPLY DURING THE SECOND REGULATORY PERIOD*” dated May 30, 2006.

³³ Since the WACC is intended to be a stable indication of the reasonable rate of return, investors should obtain their investments on distribution assets, thus, a high degree of volatility in this parameter is not acceptable. Furthermore, such excess volatility would give rise to discrepancies between the price settings for various entry groups into PBR and may lead to several re-opening events during the regulatory periods – which is not only very resource-intensive to undertake, but would also lead to instability in the price forecasts and increased regulatory uncertainty for Regulated Entities and investors.

8.2.6 Since the calculation of the WACC is described in some detail in the updated WACC report, only the main discussion points are replicated below.

8.3 WACC Methodology

8.3.1 The WACC formula adopted by the ERC, as described in Section 4.11 of the RDWR, is for the so-called “Vanilla WACC” :

$$\text{WACC} = [r_e \times E / V] + [r_d \times D / V]$$

Where:

r_e = the cost of equity;

with $r_e = r_f + \beta_e \times \text{MRP}$

where r_f = the risk-free rate;

β_e = the equity Beta; and

MRP = market risk premium, set at 6% for the Second Regulatory Period

r_d = the cost of debt;

with $r_d = r_f + \text{DM}$

where r_f = the risk-free rate; and

DM = the debt margin in the Philippines

E = the amount of equity funding assumed for regulatory purposes in the capital structure of the Regulated Entity, being 55% of V for the Second Regulatory Period;

D = the amount of debt funding assumed for regulatory purposes in the capital structure of the Regulated Entity, being 45% of V for the Second Regulatory Period; and

V = E + D.

8.3.2 The calculation of the WACC is straightforward, but considerable uncertainty surrounds the determination of the underlying parameters. Setting these parameters, which are subject to various manners of interpretation, is often contentious. While the approach to the WACC adopted by the ERC has been largely unchallenged for the regulatory reset for the distribution utilities, it was thoroughly tested and challenged during the regulatory reset for TransCo before being finalized. The adopted methodology is therefore considered sound and robust.

8.3.3 The risk-free rate was estimated using two approaches – a direct measure using the yields on long dated Philippines Treasury bonds (in Peso); and an indirect measure using yields on long dated USA Treasury bonds (US\$), adjusted for the inflation differential between the Philippines and the USA, and the Philippines country risk. Since the indirect method appears more robust given the very low trading volumes in long dated Philippine bonds, the ERC used this and determined a value of 9.12% for the risk-free rate.

- 8.3.4 In the absence of sufficient local evidence on the appropriate equity Beta (β_e) for electricity distribution businesses, this figure is derived from international observations³⁴. Since these observations generally reflect the financing structure of the observed companies, it is necessary to de-lever the observed β_e figures and re-lever these using the gearing ratio adopted by the ERC (55:45 debt equity ratio). The ERC sourced data from Bloomberg on various overseas electricity companies, resulting in a β_e estimate of 1.25. This was compared against research data published by Prof. Anwath Damodaran of the Stern University³⁵ which resulted in the same value (1.25). Finally, international regulatory decisions of recent years were considered, resulting in an indicative β_e range of 0.65 to 1.00. However, the ERC concluded that the regulatory decisions were made in more developed, stable environments where the risk faced by Regulated Entities would be less than in the Philippines, under a new and developing regulatory regime. In conclusion, the ERC therefore accepted a β_e figure of 1.25.
- 8.3.5 Based on its investigation of the debt margin, the ERC concluded that a figure of 2.5% is appropriate. This is somewhat higher than its similar decision for TransCo (2.3%), but reflects the smaller size and somewhat higher risk proposition of distribution companies.
- 8.3.6 Taking into account the values above, the calculation of the indicative range for the regulatory WACC for the first entry group of Philippines electricity distribution utilities for the Second Regulatory Period is indicated in Table 8.1.
- 8.3.7 The ERC notes that this calculated range is substantially higher than that indicated in its WACC calculation for the First Entry Group – this is a reflection of the impact of the changes in the economic situation in the Philippines over the last 12 months.

8.4 Draft Determination – Regulatory WACC

- 8.4.1 The ERC's Draft Determination on the Regulatory WACC that will apply for the Second Regulatory Period is to accept a figure at the middle of the indicated WACC range as calculated in Table 8.1. This is a “vanilla” WACC and is set at 14.37% (p.a.).

³⁴ It is noted that Meralco is the only electricity distribution company traded on the Philippine stock exchange. However, given its energy trading and supply activities, it has the characteristics of a vertically integrated company rather than a stand-alone distribution business. It's risk profile is therefore not considered an appropriate benchmark for setting the β_e for local electricity distribution companies.

³⁵ <http://pages.stern.nyu.edu/~adamodar/>

Table 8.1 : Calculation of the Regulatory WACC – First Entry Group

Parameters		Regulatory WACC Estimate by ERC			
		Low	Mid	High	
Gearing (Debt) ratio	D/(D+E)	50%	45%	50%	
Equity ratio	E/(D+E)	50%	55%	50%	
Debt to Equity	D/E	1.00	0.82	1.00	
Asset beta (degeared empirical beta)	β_a	0.683	0.688	0.693	
Risk free rate (nominal - US\$ 10 Year Bond Yields in USA)		3.89%	4.14%	4.39%	
Country Risk Margin (excluding FX Risk)	CRP	1.65%	1.90%	2.15%	
Risk free rate used in WACC	R_f	8.61%	9.12%	9.64%	
Debt Margin	DM	2.25%	2.50%	2.75%	
Cost of debt (pre-tax nominal peso terms)	K_d	10.86%	11.62%	12.39%	
Market Risk Premium (Developed Country)	$R_m - R_f$	6.00%	6.00%	6.00%	
Corporate tax rate	t_c	30.8%	30.8%	30.8%	
Inflation rate (Philippines)	i	6.41%	6.91%	7.41%	
Inflation Rate (USA)		3.47%	3.97%	4.47%	
Calculated Equity (Regeared) Betas		Formula	Low	Mid	High
Equity Beta (1) Simple No Tax Adjustment		1	1.37	1.25	1.39
Equity Beta (2) Simple Tax Adjustment		2	1.15	1.08	1.17
Other Parameters					
Equity beta (geared beta)	β_e		1.37	1.25	1.39
Cost of Equity (post-tax nominal)	K_e		16.80%	16.62%	17.95%
WACC Matrix - Commercial Practice					
Post-tax nominal			12.15%	12.76%	13.26%
Post-tax real			5.39%	5.47%	5.44%
Pre-tax nominal			17.57%	18.45%	19.17%
Pre-tax real			10.49%	10.79%	10.95%
Vanilla WACC (nominal)			13.83%	14.37%	15.17%

9. ANALYSIS OF REVENUE REQUIREMENTS AND PRICE CAPS

9.1 Approach to calculating the Maximum Average Price (MAP)

9.1.1 The ERC has adopted the approach outlined in Article IV of the RDWR for the calculation of the Smoothed Maximum Average Price (SMAP) for ILPI. The steps in this calculation are as follows.

- (a) Decision on the energy forecasts and the allowed capital, operating & maintenance and levies, duties and other taxes expenditure for the Second Regulatory Period (see Sections 3, 4, 5 and 6);
- (b) Identification of the rolled-forward asset base (see Section 7.5);
- (c) Calculating the annual allowed revenue requirement, using the building blocks; and
- (d) Setting of the P_0 -factor and calculation of the X-factor as per Section 4.15.

9.1.2 A regulatory financial model has been developed for the ERC and Regulated Entities to assist with the analysis and calculation of the X-factor and the SMAP. This model relies on forecast expenditure data, economic indices and consumption figures, as well as the opening value of the RAB.

9.1.3 The results presented below have been calculated by applying this regulatory financial model. The model was also applied by ILPI for its Revenue Application.

9.2 Annual Revenue Requirement – ILPI application

9.2.1 The annual revenue requirement proposed by ILPI in their Revenue Application is indicated in Table 9.1. This was based on the following key assumptions:

- a) The capital expenditure proposed in ILPI's Revenue Application.
- b) The operating and maintenance expenditure proposed in ILPI's Revenue Application.
- c) The levies, duties and other taxes proposed in ILPI's Revenue Application.
- d) The energy consumption forecasts included in ILPI's Revenue Application.
- e) The financial indices proposed in ILPI's Revenue Application.
- f) ILPI's calculation of the value of the opening RAB.
- g) The depreciation calculations proposed in ILPI's Revenue Application.
- h) A Regulatory WACC of 12.8%.
- i) A zero working-capital allowance.
- j) An assumed corporate tax rate of 30%, for the whole Second Regulatory Period.

Table 9.1 : ILPI Application - Allowed Revenue Requirement (PhP Million, nominal)

Building block	2010	2011	2012	2013
Return on capital	81.3	92.0	99.6	110.2
Opex	133.8	145.4	156.3	170.4
Regulatory depreciation	31.2	33.5	35.8	39.6
Corporate income tax	0.0	18.9	20.8	33.7
Other taxes	2.7	1.8	1.4	1.3
TOTAL	249.0	291.6	313.9	355.2

Source : ILPI Revenue Application

9.3 Annual Revenue Requirement – ERC analysis

9.3.1 The ERC modeled the annual revenue requirement for ILPI based on its energy forecasts described in Section 3.3, expenditure allowances discussed in Sections 4.8, 5.9 and 6.5, the opening value of the RAB discussed in Section 7.3.1 and the rolled-forward value of the RAB discussed in Section 7.5.

9.3.2 The calculation of the return on capital building block is indicated in Table 9.2.

Table 9.2 : Calculation of the Return on Capital (PhP Thousand, nominal)

	2010	2011	2012	2013
Average RAB for the Year (see Table 7.6)	654,498	719,317	753,972	767,554
Opex approved (see Table 5.6)	122,691	129,068	133,304	137,986
Working capital allowed	3,681	3,872	3,999	4,140
Subtotal - capital invested	658,179	723,189	757,971	771,694
RETURN ON CAPITAL	94,580	103,922	108,920	110,892
Regulatory WACC (see Section 8)	14.37%			
Working capital factor (see Section 7.6)	3%			

Source: ERC Analysis

9.3.3 Based on its modeling, the ERC’s determination of ILPI’s annual revenue requirement for the Second Regulatory Period is indicated in Table 9.3. This is also graphically represented in Figure 9.1.

Table 9.3 : ERC Calculation – ILPI Revenue Requirement (PhP Million, nominal)

Building block	2010	2011	2012	2013
Return on capital (see Table 9.2)	94.6	103.9	108.9	110.9
Opex (see Table 5.5)	122.7	129.1	133.3	138.0
Regulatory depreciation (see Table 7.3)	27.0	30.2	31.6	33.4
Corporate income tax (calculated by model)	0.0	1.6	16.7	34.7
Other taxes (see Table 6.3)	1.7	0.7	0.3	0.1
TOTAL	246.0	265.5	290.8	317.1

Note: These figures do not include the required GSL provision

9.3.4 In Figure 9.2, the ERC’s approved annual revenue requirement is compared with that of ILPI and the forecast energy consumption on the ILPI network, on a normalized basis (using the 2008 values as basis and working with the real values for expenditure).

From this it is clear that the ILPI application for its revenue requirement over the Second Regulatory Period is reasonably well aligned with the anticipated energy consumption growth, but that it also provides for catching up on some of the deficiencies from past under-expenditure.

This is also the situation anticipated with the ERC’s allowed revenue requirement for ILPI.

Figure 9.1 : Allowed Revenue Requirement – ILPI Application vs. ERC Determination

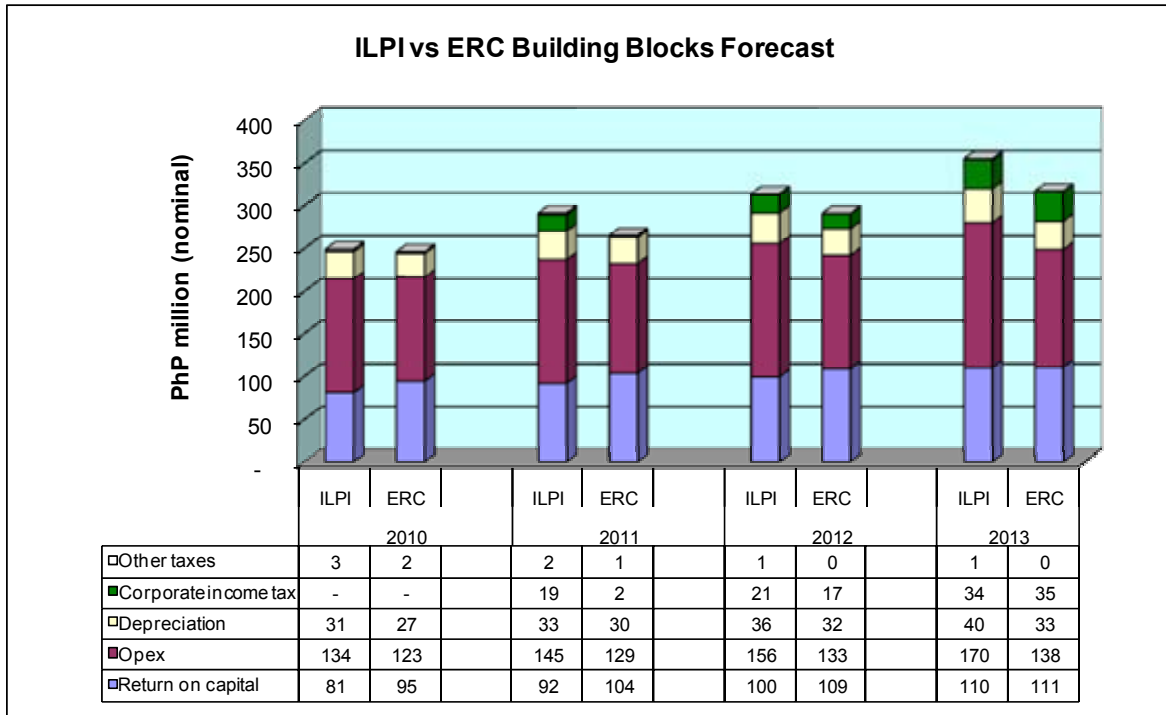
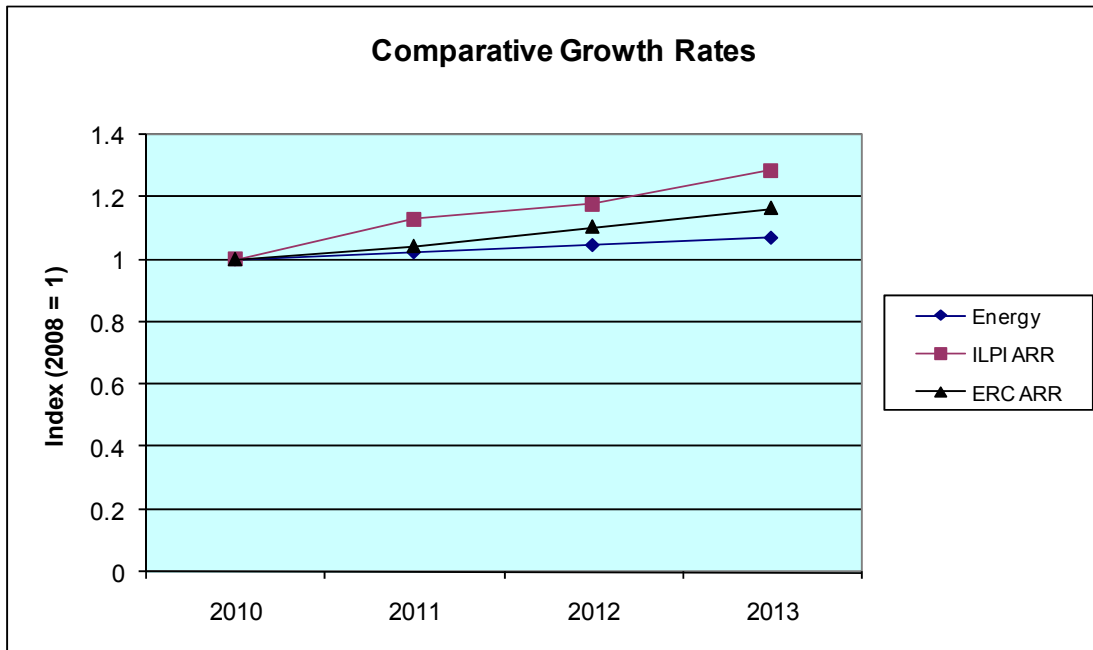


Figure 9.2: Comparison of Growth Rates – Revenue Requirements (real) and Energy Consumption



Source: ERC analysis

9.4 Draft determination – Allowed revenue requirement

9.4.1 For the Guaranteed Service Level (GSL) component of the performance incentive scheme approved for the Second Regulatory Period, an additional allowance of 0.5% of

the annual revenue requirement should be made (see discussion in Section 10.3). This is to ensure the revenue-neutrality of the Regulated Entities in applying this scheme.

9.4.2 After allowing for this addition, the ERC’s Draft Determination with regard to ILPI’s allowed annual revenue requirement for the Second Regulatory Period is indicated in Table 9.4.

Table 9.4 : Draft Determination - ILPI Annual Revenue Requirement (PhP, nominal)

	2010	2011	2012	2013
ARR without GSL allowance	246,061,567	265,513,765	290,879,081	317,090,996
GSL allowance	1,230,308	1,327,569	1,454,395	1,585,455
TOTAL ARR	247,291,875	266,841,334	292,333,476	318,676,451

9.5 Draft determination – Smoothed maximum average price

9.5.1 The MAP for Regulated Distribution Services in 2009, as indicated by ILPI in their revenue application, based on their October 2007 to September 2008 energy consumption, is calculated in Table 9.5. In terms of the RDWR (Clause 4.5), this value is used as the basis from which the X-factor is determined.

Table 9.5 : Average Price during 2009

ILPI revenue from Regulated Distribution Services from April 2009 to Mar 2010 ³⁶ (PhP)	140,976,905
Energy sales for Oct 2007 to Sept 2008 (kWh)	177,637,103
Average price (PhP/kWh)	0.794

9.5.2 Based on this 2009 average price and the allowed annual revenue requirement described above, the ERC calculates the X-factor and the opening MAP for ILPI for the Second Regulatory Period as follows (with a P₀-factor of zero) :

X-factor : -20.07%
MAP₂₀₁₀ : PhP1.002 (PhP/kWh)

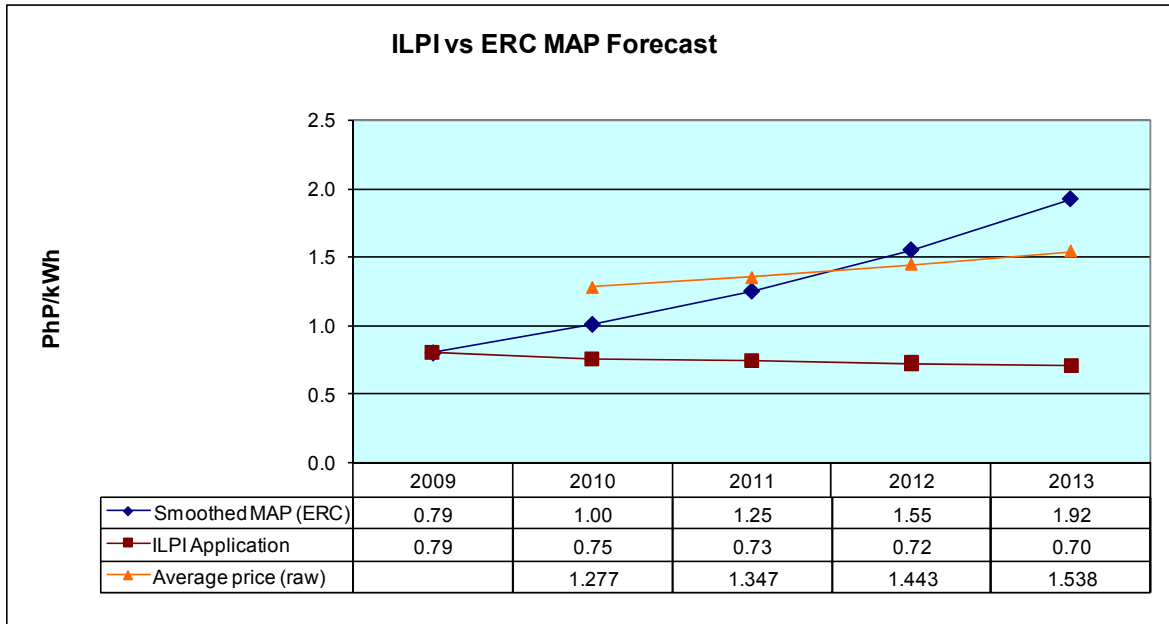
Based on these values, the anticipated average annual price increases during the Second Regulatory Period will be at the rate of inflation plus 20.1%. Taking the ERC forecasts for the Philippine inflation rate into account, it results in the anticipated smoothed price path indicated in Figure 9.3.

In Figure 9.3, the ILPI proposed price path is also indicated. In addition, the raw (non-smoothed) price based on the ERC’s calculated annual revenue requirement is shown.

9.5.3 In Figure 9.3, it will be noted that the ILPI modeled price path trends down. This is illustrative of the problem discussed in Section 4.9.1 with the proposed acquisition of a number of large direct-connect sub-transmission customers and including their consumption in the overall distribution figures. For the ERC modeling, these consumers were not included and a substantial increase in the smoothed price path resulted. This is a fairer reflection of the actual prices that the bulk of consumers, especially residential and commercial is likely to experience, even if the new direct connect consumption was to be included in the rate base.

³⁶ This revenue is calculated after deducting 50% of related business revenue (RBR) earned from the distribution network.

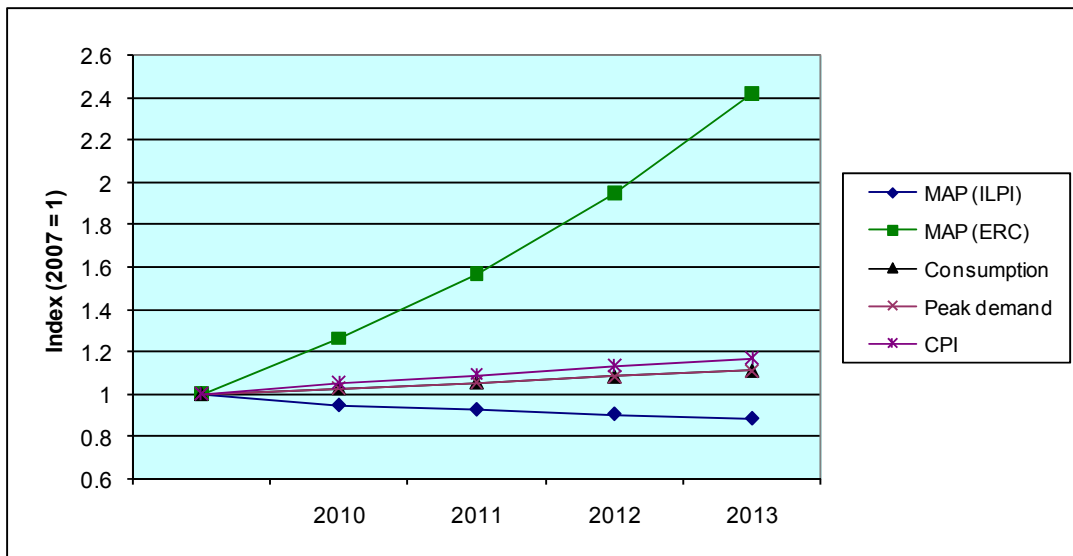
Figure 9.3 : Comparison of Anticipated Price Paths



Source: ERC analysis

9.5.4 In Figure 9.4, a further analysis of the smoothed price path is presented. By normalizing values to a common 2007 basis, it is possible to compare the relative movement of the smoothed MAP with the movements in the CPI, energy consumption and the system peak demand.

Figure 9.4 : Comparison of the Smoothed MAP to Other Indices

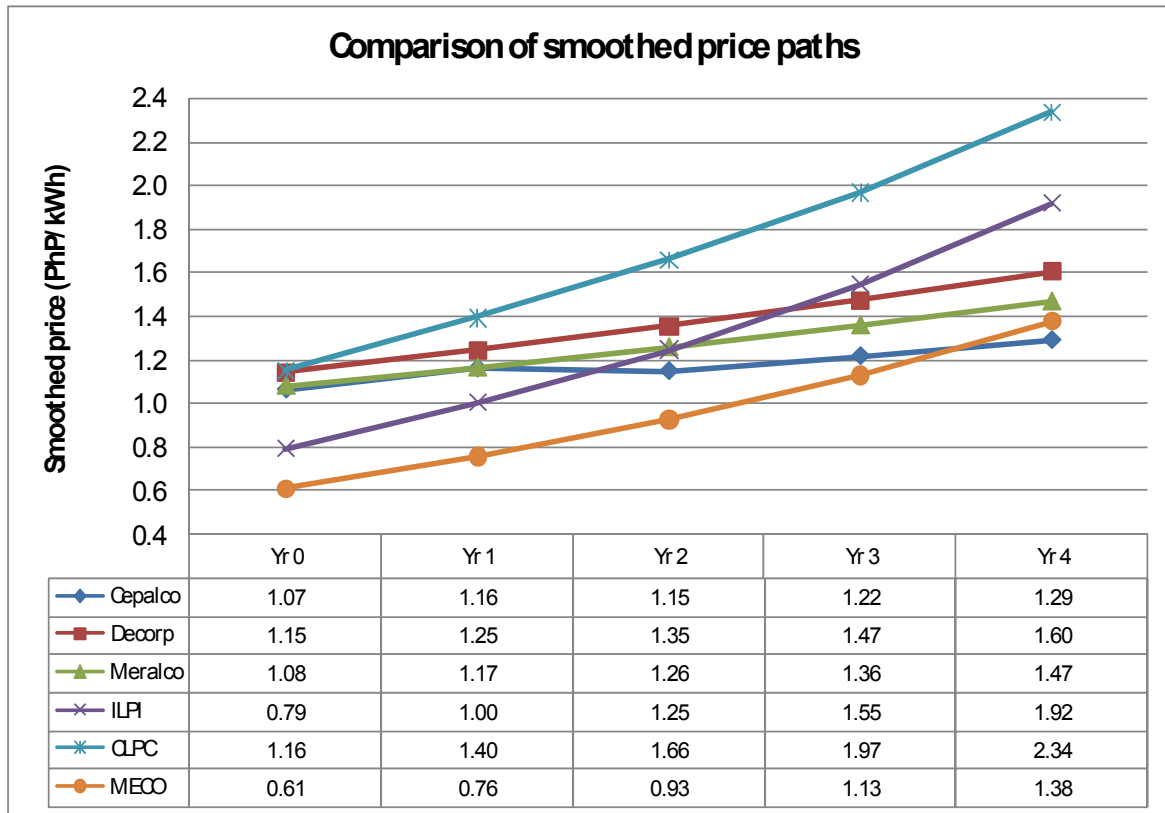


Source: ERC analysis

9.5.5 It will be noted that the ILPI price path growth is substantially higher than the other indicated indices. This is of some concern to the ERC, since the price increases for distribution services would therefore clearly outstrip the factors that would normally be considered to underlie it. Furthermore, a comparison of the indicated ILPI price path for

the Second Regulatory Period, when compared against that of the first entry group utilities and the others in the second entry group, indicates that the ILPI distribution rates would increase at the highest rate and at the end of the Second Regulatory Period would be second to only that of CLPC. This is indicated in Figure 9.5.

Figure 9.5 : Comparison of the Smoothed Price Paths of Distribution Utilities



Source: ERC analysis

9.5.6 The ERC is concerned about the substantial rises in the cost of electricity distribution as indicated in the above figures, if ILPI is allowed the revenue requirement as calculated in Section 9.4. It accepts that in terms of the RDWR, this outcome is reasonable and would provide ILPI with a reasonable return on their efficient expenditure. The ERC also accepts that the indicated increases are at partly due to previous under-expenditure – as indicated by the low starting base for the ILPI distribution price (see Figure 9.5) and the resulting catching up with deferred past expenditure. However, it does not believe that the indicated price increase for the 2008 regulatory year, as well as the indicated increases for the rest of the 2nd regulatory period, are reasonable or realistically sustainable by the majority of ILPI’s customers.

9.5.7 In the best interest of the ILPI consumers and to avoid a huge price-shock, the ERC has therefore decided to intervene in the rate-setting process. It proposes to introduce a reduction on the revenue allowance for ILPI during the Second Regulatory Period. This reduction will be lifted during the Third Regulatory Period, at which time ILPI will be allowed to earn the full annual revenue requirement as calculated in terms of the RDWR methodology at that time.

9.5.8 The proposed reduction will reduce the effective return on the RAB that ILPI can earn during the Second Regulatory Period. The recommended expenditure levels however do

not need to be reduced. The intervention will therefore not inhibit ILPI’s ability to invest in or to effectively maintain and operate its electricity distribution network.

9.5.9 The ERC will not prescribe in which of the building blocks the proposed reduction would have to be achieved and will leave the value of these building blocks as indicated in Table 9.3 unchanged. This implies that ILPI will be entitled to reduce any (or all) of these as it best fits with its operations.

9.5.10 In addition, any efficiency adjustments³⁷ achieved by ILPI to be carried over to the Third Regulatory Period, will be measured against the building block values as calculated without the regulatory intervention.

9.5.11 The annual revenue requirement approved by the ERC for the final determination is presented in Table 9.6. The extent of the ERC’s intervention to reduce the amount indicated through the calculations above is also demonstrated in this table.

9.5.12 The reduction in the allowed annual revenue and the resulting lower Smoothed Maximum Annual Price (SMAP) caps will result in lower corporate taxes payable on units sold. The corporate income tax building block therefore also has to be adjusted, as indicated in Table 9.6. This implies that the actual reduction in the ARR is expected to be somewhat larger than the regulatory intervention on its own. However, the net impact of the reduction in the corporate tax building block will be largely neutral to ILPI.³⁸

9.5.13 For the Guaranteed Service Level (GSL) component of the Performance Incentive Scheme (PIS) approved for the Second Regulatory Period, an additional allowance of 0.5% of the annual revenue requirement should be made (see discussion in Section 10.3). This is to ensure the revenue-neutrality of the Regulated Entities in applying this scheme. The impact of this addition is also indicated in Table 9.6. This calculation is based on the ARR without the regulatory intervention.

Table 9.6 : Draft Determination - ILPI Annual Revenue Requirement (PhP, nominal)

	2010	2011	2012	2013
ARR as calculated	246,061,567	265,513,765	290,879,081	317,090,996
Reduction imposed by ERC	-22,000,000	-24,000,000	-26,000,000	-28,000,000
Reduction of corporate tax building block	0	-1,560,337	-6,805,504	-11,240,159
Resulting ARR	224,061,567	239,953,428	258,073,577	277,850,837
GSL allowance	1,230,308	1,319,767	1,420,368	1,529,254
TOTAL ARR	225,291,875	241,273,195	259,493,945	279,380,091

9.6 Setting the P₀-factor

9.6.1 In terms of Clause 4.15.3 of the RDWR, the ERC can set the P₀-factor to reduce price shocks during the transition to the Second Regulatory Period. The impact of the P₀-factor is to shift the opening MAP during the Second Regulatory Period up or down, depending on its setting, and to create an opposite movement in the annual price increments during the Second Regulatory Period. Overall, the impact of the P₀-factor is revenue neutral to the Regulated Entities.

9.6.2 Since there will be further consultation on the expenditure approvals included in the Draft Determination, which may have an impact on the final X-factor and opening MAP, the

³⁷ As described in Article IX of the RDWR.

³⁸ The reduced ARR is offset against lower corporate taxes. There may be a minor difference arising due to timing differences as to when the tax is actually paid and when it is recovered from consumers.

ERC did not determine a P_0 -factor for the Draft Determination. It will make a final decision on this for the Final Determination, once the final allowed required revenue is determined.

9.7 Side constraints

9.7.1 In terms of Clause 6.4 of the RDWR, side constraints can be set by the ERC, having regards to the plight of end-consumers. In the Position Paper (Clause 10.3), the ERC indicated that these constraints will not be set at less than 2%. The side constraints inhibit the maximum average price rise for a particular customer segment (or segments).

9.7.2 As for the P_0 -factor, the ERC will not decide on side constraints for the Draft Determination. These will be determined for the Final Determination.

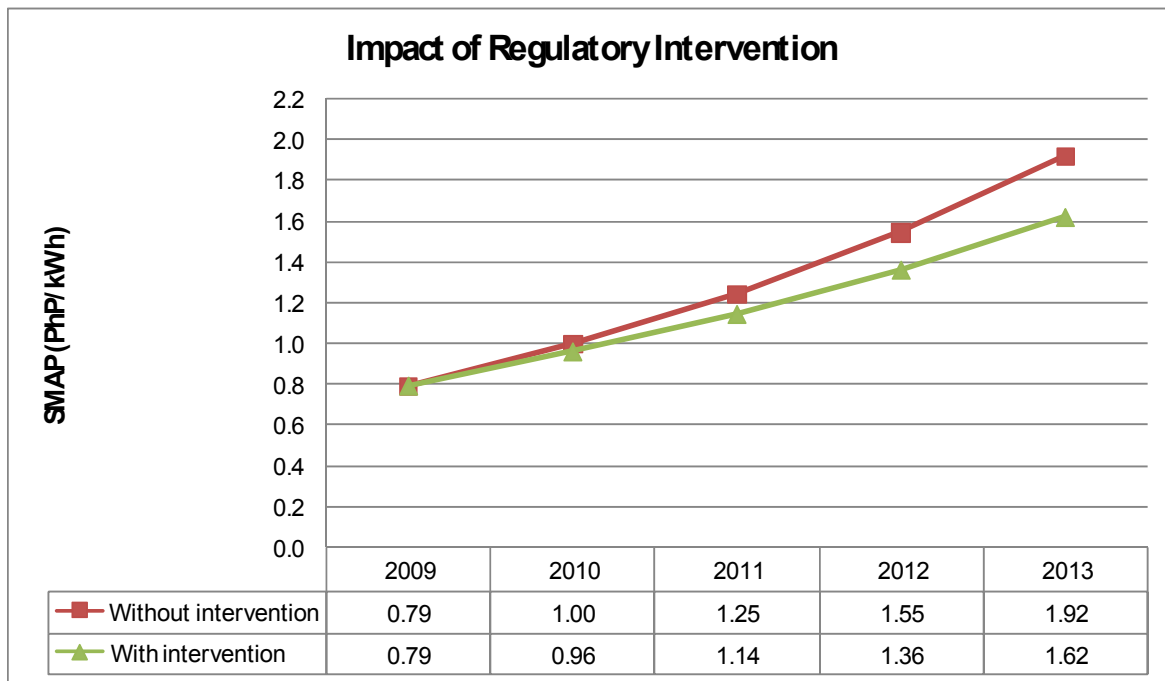
9.8 Draft Determination on the opening price and smoothing factor

9.8.1 The ERC's Draft Determination on the opening MAP and the smoothing factor (X-factor) that will apply to ILPI at the start of the Second Regulatory Period, is as follows:

X-factor	:	-15.56%
MAP ₂₀₁₀	:	PhP 0.961 (PhP/kWh)

9.8.2 The impact of the regulatory intervention on the smoothed price path is indicated in Figure 9.6.

Figure 9.6 : Impact of the Regulatory Intervention on the ILPI Smoothed Price Path

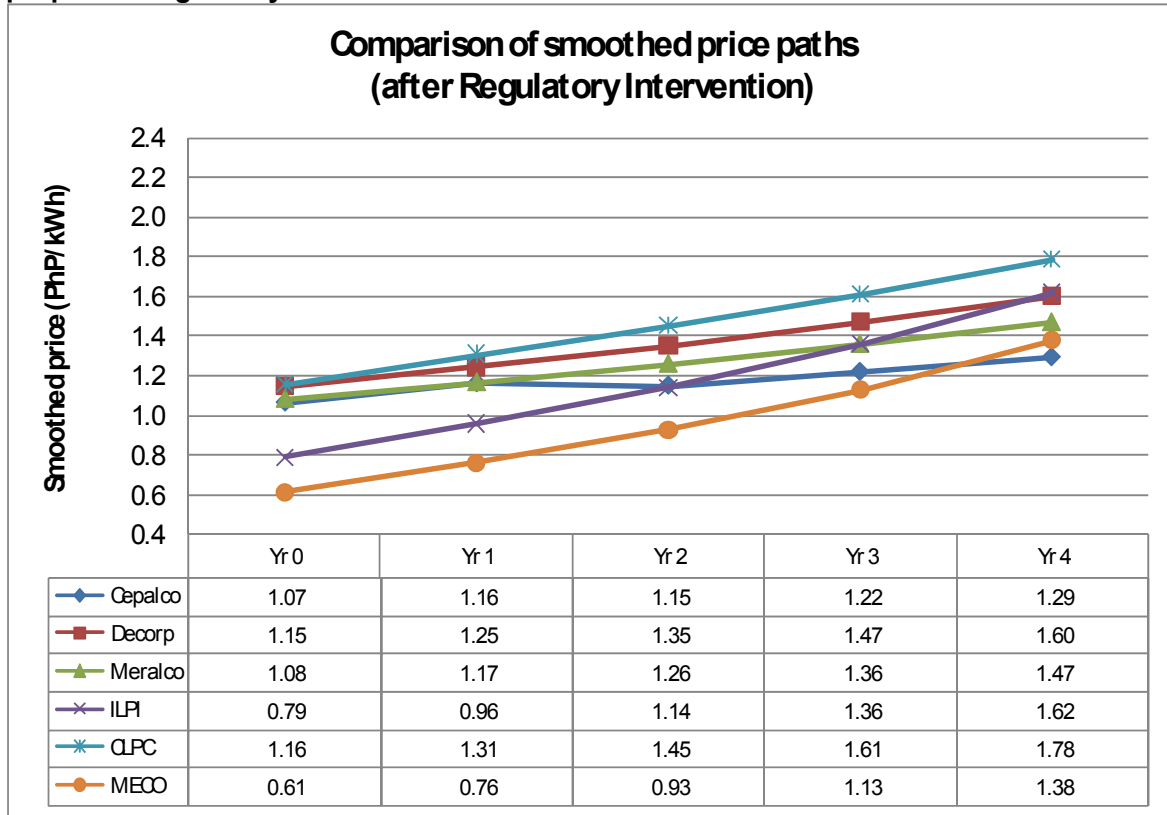


Source : ERC analysis³⁹

³⁹ It should be noted that the actual inflation rates and other factors, such as performance incentives, will also play a role in the rates later on in the Second Regulatory Period. These figures reflect the smoothed, estimated price path only.

9.8.3 In Figure 9.7, the impact of the regulatory intervention on the comparative price paths of the other utilities that have entered PBR to date, is indicated.⁴⁰ It will be noted that even after this intervention, while the resulting ILPI distribution price is closer to the average (compared with Figure 9.5), it will still be the second highest of this group. While it is recognized that due to the lack of economies of scale smaller utilities often lie at the higher end of the price spectrum, this outcome remains of some concern to the ERC.

Figure 9.7 : Comparison of the Smoothed Price Paths of Distribution Utilities, after the proposed Regulatory Intervention



⁴⁰ In this figure the price path for ILPI also takes into account a proposed regulatory intervention.

10. PERFORMANCE INCENTIVE SCHEME

10.1 Background to the Performance Incentive Scheme

10.1.1 The Performance Incentive Scheme (PIS) is one of the key features of Performance Based Regulation. The service delivery performance of the Regulated Entities will be monitored and, depending on performance against pre-set benchmarks, the Regulated Entity will be rewarded or penalized. The penalty or reward is capped at a maximum of 3% of the annual revenue requirement for each Regulated Entity.

10.1.2 As part of the preparation of the Issues Paper, the ERC developed a PIS to meet the requirements of the RDWR (Clause 8.2). The PIS consists of three parts:

- a) Price-linked Incentive scheme;
- b) Guaranteed Service Level scheme; and
- c) Information disclosure.

10.1.3 However, during consultation on the Issues Paper, it became apparent to the ERC that the Regulated Entities did not have a sufficiently developed measurement capacity or historical data records to fully implement the PIS as envisaged by the ERC. For the Second Regulatory Period, each Regulated Entity was therefore given the opportunity to design a PIS based on its own ability and available performance records. This PIS was submitted for the ERC's consideration as part of the Revenue Application.⁴¹

10.1.4 The ERC published a framework for the PIS that would apply from the Third Regulatory Period onwards to guide the Regulated Entities in the preparation of their PIS for the Second Regulatory Period.⁴² In this framework, the performance indices that will apply from the Third Regulatory Period are described. In addition, the mechanisms for calculating the performance incentives or penalties are discussed, as well as events of which the impact can be excluded from the yearly performance statistics.

10.1.5 The ERC's Draft Determination on the PIS that will apply to ILPI during the Second Regulatory Period is discussed below.

10.2 Overview of the Price-linked Incentive Scheme

10.2.1 The price-linked component of the PIS allows for the introduction of a performance incentive factor, or S-factor, in the annual calculation of the price-caps, as follows (Clause 4.2.1 of the RDWR):

$$MAP_t = [MAP_{t-1} \times \{1 + CWI_t - X\}] + S_t - K_t + ITA_t$$

The S-factor can be zero, positive or negative, depending on whether actual performance against the (weighted) majority of the performance indices measured has exceeded the predetermined performance targets, or has fallen below these.

10.2.2 The maximum value of the price-linked incentive is capped at 2.5% of the annual revenue requirement (ARR) for each Regulated Entity.

⁴¹ It is the intent that Regulated Entities will develop their performance measurement capacity and build up performance statistics during the Second Regulatory Period, so that the full version of the ERC's intended PIS can be implemented from the Third Regulatory Period onwards.

⁴² ERC report titled "*Framework for the Performance Incentive Scheme to apply from the Third Regulatory Period*", dated March 1, 2006.

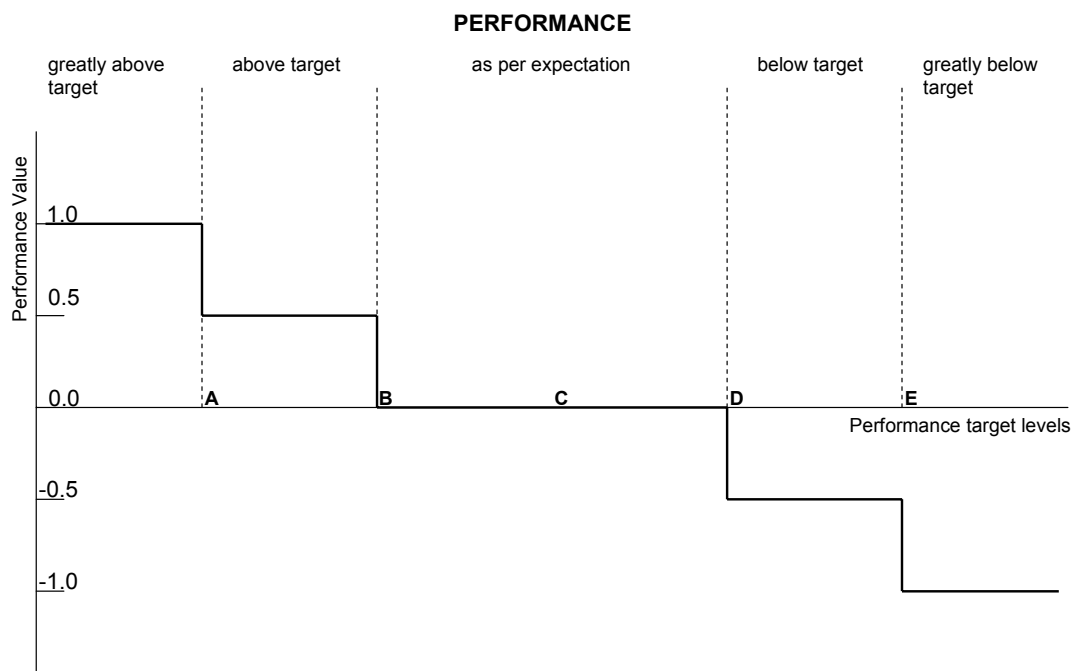
10.2.3 Performance will be assessed against a number of targets and, depending on the actual result, each index will be awarded a performance value, as described in Table 10.1 and illustrated in Figure 10.1 below.

Table 10.1 : Determining Performance Values

Description	Performance level	Performance value
Target greatly exceeded	$\leq A$	1.0
Target exceeded	$\leq B$, but $> A$	0.5
Performance as per expectation	$> B$ but $< D$	0
Target not achieved	$\geq D$ but $< E$	-0.5
Performance greatly below target	$\geq E$	-1.0

Note : Symbols A to E refer to figure 9.1 below

Figure 10.1 : Depiction of the Price-Linked Incentive Scheme



10.2.4 The target levels for each performance index (depicted as A to E in Figure 10.1) vary for each index and are determined by each Regulated Entity for their particular PIS. These targets are based on historical performance for each index, with point C typically representing the average performance over recent years⁴³. This implies that for the Second Regulatory Period, the Regulated Entities have an incentive to maintain service levels at, or improve from current performance levels. The ERC may in future regulatory periods introduce targets that require performance at higher than current levels to, over time, encourage higher service delivery standards to consumers. For the Second Regulatory Period, it was however decided that since a) regulatory performance management is new to the Regulated Entities; b) there are recognized imperfections in the existing performance management and measurement capability of Regulated Entities; and c) that there is as yet insufficient historical performance data to allow

⁴³ The actual details are as per the design of the PIS by each Regulated Entity.

accurate targets to be set, it would be unreasonable to introduce such stretch targets at present.

10.2.5 The S-factor is the sum of the weighted performance values for each of the indices included in the price-linked incentive scheme, where the actual indices and the weightings allocated are as per the design of each Regulated Entity's PIS and the final value is converted to a value per kWh.

$$S = \frac{\sum(\text{Performance value per index}) \times (\text{Weighting per index})}{\text{Total energy distributed}} \times 0.025(\text{ARR})$$

10.2.6 The S-factor for each regulatory year will be calculated during the annual rate reset before the start of the regulatory year. It is based on the service performance during the previous calendar year and the forecast energy that will be distributed through the Regulated Distribution System for the regulatory year. No S-factor will apply during the first regulatory year of the Second Regulatory Period.

10.3 Overview of the Guaranteed Service Level Scheme

10.3.1 In terms of the Guaranteed Service Levels (GSL) scheme, Regulated Entities will compensate a consumer directly if certain service delivery performance standards are not met. The measures for which such compensation will become payable and the thresholds to be breached before it is paid, are based on the design of the PIS for each Regulated Entity.

10.3.2 There will be an allocation of 0.5% of the annual revenue requirement to the GSL scheme. To ensure revenue-neutrality to Regulated Entities, this amount will be added to the allowed annual revenue from the start of the Second Regulatory Period. Regulated Entities have the option of using this additional allocation to pay out penalty amounts, or to effect network and service improvements to avoid penalty pay-outs.

10.3.3 In terms of the RDWR (Clause 8.2.3), the total value of the PIS cannot exceed 3% of the annual revenue requirement. Since 2.5% is allocated to the price-linked incentive scheme, this implies that the maximum penalties a Regulated Entity would face under the GSL scheme is 1% of its annual revenue requirement, this being the sum of the 0.5% residual balance for the total PIS and the 0.5% additional allowance described above. The ERC recognizes that setting this cap could lead to potential problems, as it will only be apparent at the end of each regulatory year exactly how much has been paid out in terms of the GSL scheme, which could therefore theoretically exceed the cap.⁴⁴ However, it is the ERC's view that if the situation arises where total pay-outs under the GSL scheme reaches this 1% level, it would be indicative of very serious performance issues⁴⁵, which would by itself warrant further investigation and possible intervention by the ERC.

10.4 Information Disclosure Scheme

10.4.1 The third component of the PIS is the measurement and disclosure of further performance data. Regulated Entities will be required to measure the performance of each Regulated Distribution System, or to develop their capability during the Second Regulatory Period to measure performance against the following indices:

⁴⁴ To ensure that the scheme is equitable to all customers, Regulated Entities will not be allowed to discontinue payments to affected customers if the cap is reached.

⁴⁵ Or a very poorly designed GSL scheme.

Network performance indices:

- a) Momentary Average Interruption Frequency Index (MAIFI);
- b) Frequency of tripping events per 100 circuit-km;

Service performance indices:

- c) Average time to respond to queries and complaints;
- d) Average time to reconnect a service after payment of all dues.

The information has to be collected and supplied to the ERC on a monthly basis (as soon as the measurement capability has been established).

10.4.2 The ERC will publish the information disclosure data for all Regulated Entities on an annual basis.

10.4.3 Since the format of the information disclosure scheme has been set by the ERC, the Regulated Entities were not required to address this in their Revenue Applications.

10.5 Price-linked Incentive Scheme proposed by ILPI

10.5.1 ILPI’s proposed price-linked performance scheme for the Second Regulatory Period largely conforms to the PIS framework designed by the ERC for the Third Regulatory Period, with the exception of call center performance, which is not included.⁴⁶ The method by which the S-factor will be calculated and the actual performance factors determined are as per the ERC framework, as well as the definition of the indices.

10.5.2 In Table 10.2 below, the price-linked performance scheme proposed by ILPI as part of its Revenue Application is indicated. This identifies the performance indices proposed, the weighting to be allocated to each index and the proposed performance target levels.

Table 10.2 : Price-linked Incentive Scheme Submitted by ILPI

Performance Index	Units	Weight	Reward		Average	Penalty	
			Level A	Level B	Level C	Level D	Level E
System average interruption frequency index (SAIFI)	No	0.2	5.66	11.94	18.23	24.51	30.80
Customer average interruption duration index (CAIDI)	Min	0.2	101.50	155.10	208.70	262.30	315.91
Planned system average interruption duration index (planned SAIDI)	Min	0.15	433.97	1,200.61	1,967.26	2,733.91	3,500.56
Probability of voltage levels falling within prescribed limits	%	0.1		1.83%	14.68%	27.53%	40.38%
System losses	%	0.05	10.60%	10.73%	10.86%		
Average time to process application for Regulated Distribution Services	Days	0.15	1.64	3.32	5.00	6.68	8.36
Average time to connect premises to the Regulated Distribution System	Days	0.15	1.68	3.59	5.50	7.41	9.32

10.5.3 It is the ERC’s understanding that ILPI’s capability to measure power outages and hence calculate the SAIFI, CAIDI and SAIDI indices is limited to outages on the major medium voltage feeders (one or more phases) and distribution transformers. This capability will be further developed during the Second Regulatory Period, to allow the impact of outages to be measured more accurately, a more localized basis.

⁴⁶ ILPI does not at this stage operate a call center.

10.5.4 Based on ILPI’s calculations, the average historical system performance against the proposed network performance indices is presented in Table 10.3.

Table 10.3 : Historical Network Performance

Performance Indices	Unit	2003	2004	2005	2006	2007	Average	Standard Deviation
SAIFI	no.	25.60	22.27	9.99	19.32	13.96	18.23	6.28
CAIDI	min.	153.42	190.04	185.10	219.74	294.85	208.70	53.60
Planned SAIDI	min.	2,033.22	2,794.06	808.22	2,477.38	1,723.43	1,967.26	766.65
Voltage Reg.	%	-	-	-	23.77	5.59	14.68	12.85
System Losses	%	4.92	6.91	10.72	10.98	10.88	10.86	0.13

10.5.5 With regard to the probability of voltage levels violating the limits prescribed in the Philippines Distribution Code, ILPI indicated that it only has limited readings available and that these were all taken on the low-voltage side of the network.

10.5.6 The targets for the average time to process applications for regulatory services, or to connect premises, are based on historical average times recorded by ILPI to perform these services. The proposed performance threshold bands were based on the same calculation method described in Paragraph 10.5.7.

10.5.7 During its review of ILPI’s proposed performance incentive scheme, the ERC noted a discrepancy in the manner in which ILPI calculated the CAIDI figures and requested this to be corrected. The revised figure for this index is indicated in Table 10.4.

Table 10.4 : Revised Price-Linked Incentive Scheme for the CAIDI Index

Performance Index	Units	Weight	Reward		Average	Penalty	
			Level A	Level B	Level C	Level D	Level E
Customer average interruption duration index (CAIDI)	Min	0.2	23.64	43.00	62.36	81.72	101.07

10.6 Guaranteed Service Level Scheme proposed by ILPI

10.6.1 ILPI’s proposed GSL scheme for the Second Regulatory Period largely conforms with the PIS framework designed by the ERC for the Third Regulatory Period. This includes the method used to determine the applicable penalty levels, as well as the approach to events which should be excluded when determining the service performance. In Table 10.4 below, the proposed GSL scheme is summarized.

Table 10.4 : GSL Scheme Proposed by ILPI in the Revenue Application

Performance Measure	Unit	Threshold	Penalty level (PhP)
GSL1 Duration of Sustained Interruptions	Hours	67	41.01
GSL2 No. of Sustained Interruptions	Numbers	18	41.01
GSL3a Restoration Time	Hours	4	41.01
GSL4 Time to Connect	Days	5.5	41.01

- 10.6.2 ILPI noted that the proposed threshold values for the GSL1 and GSL2 components are based on historical observations of feeder outages.
- 10.6.3 The threshold values for the GSL3 components are based on the 2006 and 2007 observed values.
- 10.6.4 ILPI interprets the GSL4 component as the length of time that a customer has to wait for a connection to be made after the service contract has been signed and the service fees paid. No supporting evidence was provided on how the threshold was determined.
- 10.6.5 The calculation of the penalty levels are based on the estimated value of the scheme⁴⁷, the number of customers likely to be affected if the proposed threshold values are adopted and a weighting allocated by ILPI to ensure consistent penalty amounts.

10.7 Excluded events proposed by ILPI

- 10.7.1 ILPI proposes that the following events should be treated as excluded in as far as they may impact on annual performance statistics:
- a. Security concern that may arise in some areas that may hinder ILPI personnel to perform its functions in relation to the indices or performance measures.
 - b. Faults due to fire incidents not caused by ILPI facilities.
 - c. Failure of an applicant to appear on the pre-agreed schedule, in relation to service performance measures.
 - d. Preference of an applicant for a particular date for service beyond the target accomplishment period as indicated in this scheme.

10.8 ERC Draft Decision on the Price-linked Incentive Scheme

- 10.8.1 The ERC accepts the performance indices proposed by ILPI for the price-linked incentive scheme, the proposed weightings for each index and the manner in which performance against these indices are converted to the S-factor.
- 10.8.2 The ERC accepts ILPI's original application. ILPI's proposal for the calculation of the performance bands by adopting multiples of the standard deviation of each index, is accepted. The ERC is concerned that the available sample size of annual performance figures is too small for accurate statistical manipulation, but recognizes that using any other method to set the bands would be arbitrary and not provide any additional accuracy. It is also satisfied that if these bands had been applied to the historical performance figures, it would have provided acceptable outcomes.⁴⁸
- 10.8.3 In respect of the voltage regulation index, the ERC recognizes that insufficient historical data exists to determine an accurate, reasonable target. In the absence of sufficient data, the ERC accepts the targets proposed by ILPI. It also accepts that ILPI is still collecting information in this regard and that it will be able to provide a better indication of the realistic voltage regulation targets in time for the publication of the Final Determination. This additional evidence will be taken into account by the ERC in its Final Determination.

⁴⁷ 0.5% of the annual revenue requirement for each year, as discussed in Paragraph 10.3.2.

⁴⁸ Based on its calculation, the great majority of the historical performance values from 2000 to 2007 for the proposed indices involved would have resulted in neutral outcomes, i.e. no penalty or bonus. In no instance would performance have been assessed to greatly exceed expectations.

10.8.4 The ERC notes that ILPI's proposed targets for the system losses index is based on the actual historic average figures. This was the original intention for this index in the incentive scheme. However, following recent focus on system losses and to avoid possible wrong perceptions, the ERC believes that it would be more appropriate to set the minimum value over which performance bonuses will be paid at the system loss cap. This would provide a further incentive for Regulated Entities to reduce losses to this value. For Regulated Entities with historical losses below the system loss cap, the target (average) value for losses will still be based at the historical level. In accordance with the ERC policy set out in the Position Paper, index should not have a penalty component.

10.8.5 The ERC's Draft Determination on the price-linked incentive scheme is presented in Table 10.6.

Table 10.6 : ERC Draft Determination on the Price-Linked Incentive Scheme for ILPI

Performance Index	Units	Weight	Reward		Average	Penalty	
			Level A	Level B	Level C	Level D	Level E
System average interruption frequency index (SAIFI)	No	0.2	5.66	11.94	18.23	24.51	30.80
Customer average interruption duration index (CAIDI)	Min	0.2	101.50	155.10	208.70	262.30	315.91
Planned system average interruption duration index (planned SAIDI)	Min	0.15	433.97	1,200.61	1,967.26	2,733.91	3,500.56
Probability of voltage levels falling within prescribed limits	%	0.1		1.83%	14.68%	27.53%	40.38%
System losses	%	0.05	8.5%	9.0%	9.5%		
Average time to process application for Regulated Distribution Services	Days	0.15	1.64	3.32	5.00	6.68	8.36
Average time to connect premises to the Regulated Distribution System	Days	0.15	1.68	3.59	5.50	7.41	9.32

10.9 ERC Draft Decision on the GSL Scheme

10.9.1 The ERC accepts the broad GSL categories proposed by ILPI. The penalty levels are considered

10.9.2 The ERC will accept the targets and penalty levels proposed by ILPI for the Draft Determination but requests ILPI to review these calculations prior to its submission on the determination and confirm that they are indeed correct.

10.9.3 The final penalty levels for the GSL scheme has been adjusted in accordance with the allowance made by the ERC (as per Table 9.6). The average GSL allowance over the regulatory period was used as basis. In Table 10.7 the ERC's Draft Determination on the GSL scheme for ILPI is described.

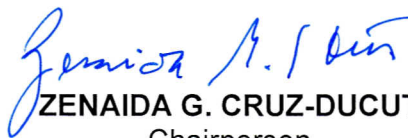
Table 10.7 : ERC Draft Determination on the GSL Scheme for ILPI

Performance Measure	Unit	Threshold	Penalty level (PhP)
GSL1 Duration of Sustained Interruptions	Hours	67	37.3
GSL2 No. of Sustained Interruptions	Numbers	18	37.3
GSL3 Restoration Time	Hours	4	37.3
GSL4 Time to Connect	Days	5.5	37.3

10.10 ERC Draft Determination on Excluded Events

- 10.10.1 The ERC will adopt the approach described in its PIS framework⁴⁹ to exclude the impact of certain events on ILPI's annual reliability statistics. This approach allows for any type of external event to be excluded, if such an event is rare and the impact of such an event is so severe that it overwhelms the capacity of Regulated Entities to respond effectively.
- 10.10.2 However, the ERC does not accept that specific causes for supply interruptions should be separately identified for exclusion. It, for example, does not distinguish between outages caused by fires and vehicle accidents – both of which are outside the control of a utility, but which would be relatively common occurrences and should be manageable by an effective business.
- 10.10.3 ILPI's proposed exclusions for the service provision measures are acceptable.


Pasig City, September 25, 2008.


ZENAIDA G. CRUZ-DUCUT
Chairperson


ALEJANDRO Z. BARIN
Commissioner


RAUF A. TAN
Commissioner


MARIA TERESA A.R. CASTAÑEDA
Commissioner


JOSE C. REYES
Commissioner

⁴⁹ Supra note 42



APPENDIX A : APPROVED CAPITAL EXPENDITURE PROGRAM

Category	Forecast, nominal (regulatory year)	Forecast (peso, nominal) (Regulatory Year)			
	2009	2010	2011	2012	2013
Regulated Distribution Services Assets					
Network					
Land and Land Rights (Distribution Purposes)	0	0	0	0	1,497,059
Structures and Improvements	546,710	4,177,858	-6,012,986	0	-4,682,797
Station Equipment	-4,289,778	-11,713,614	41,032,859	4,952,534	0
Power transformers	0	24,263,393	-15,722,985	0	0
Switchgear	0	4,034,123	363,602	0	-46,504,405
Protective equipment	5,632,070	15,762,192	7,139,248	2,046,704	18,583,976
Metering & control equipment	6,123,209	4,177,739	4,631,836	0	9,595,032
Communications equipment	0	0	0	0	0
Other station equipment	1,870,692	2,952,565	1,964,775	4,806,872	3,868,749
Poles, Towers and Fixtures	14,410,723	10,348,618	18,561,481	21,268,082	27,122,440
Overhead Conductors and Devices	7,564,005	8,882,199	6,898,790	-10,226,915	-9,579,450
Underground Cables & Devices	261,548	2,379,646	159,294	0	1,636,228
Underground Conduits	0	0	0	0	0
Line (distribution) Transformers	6,984,270	7,189,802	7,750,694	8,158,584	8,537,113
Power Conditioning Equipment	499,596	0	893,601	549,128	283,899
Meters, Instruments & Metering Transformers	3,677,032	3,829,840	6,028,419	4,459,776	7,296,708
Information Systems Equipment	0	0	0	0	0
Regulated Entity Property on Consumer's Premises	0	0	0	0	0
Street Lights and Signal Systems	0	0	0	0	0
Submarine Cables	0	0	0	0	0
Non-network					
Land and Land Rights (non-network)	2,512,560	1,927,614	1,577,252	604,321	124,974
Structures and Improvements (non-network)	872,581	645,795	1,707,148	3,109,233	1,928,968
Office Furniture and Equipment	1,088,458	239,271	191,490	148,059	191,960
Transportation Equipment	6,725,724	840,529	3,589,125	9,121,625	674,130
Stores Equipment	272,194	165,304	116,833	30,216	124,974
Tools, Shop and Garage Equipment	387,059	1,199,037	1,014,646	1,008,555	1,708,824
Laboratory Equipment	1,576,683	0	0	0	0
Information Systems Equipment	5,307,522	1,768,473	1,243,108	1,099,865	1,478,438
Power-operated Equipment	0	0	0	0	0
Communication Plant and Equipment	672,005	5,604	0	0	0
Miscellaneous Equipment	3,202,787	10,352,899	-12,942,315	-15,431,217	7,986,682
Materials					
Materials and supplies, including spares	0	112,071	350,500	362,593	0
Subtrans					
Transferred subtransmission assets	0	4,401	0	3,339	-2,939

	Sub-total Regulated Distribution Services	65,897,650	93,545,359	70,536,415	36,071,354	31,870,563
Distribution Connection Services Assets						
Network	Poles, Towers and Fixtures	0	0	0	0	0
	Overhead Conductors and Devices	2,530,891	2,740,992	2,937,907	3,149,444	3,393,154
	Underground Circuits	0	0	0	0	0
	Underground Cables & Devices	0	0	0	0	0
	Line (distribution)	0	0	0	0	0
	Transformers	0	0	0	0	0
	Information Systems	0	0	0	0	0
Non-network	Equipment	0	0	0	0	0
	Land and Land Rights (non-network)	0	0	0	0	0
	Structures and Improvements (non-network)	0	0	0	0	0
	Office Furniture and Equipment	0	0	0	0	0
	Transportation Equipment	0	0	0	0	0
	Stores Equipment	0	0	0	0	0
	Tools, Shop and Garage Equipment	0	0	0	0	0
	Laboratory Equipment	0	0	0	0	0
	Information Systems	0	0	0	0	0
	Equipment	0	0	0	0	0
	Power-operated Equipment	0	0	0	0	0
	Communication Plant and Equipment	0	0	0	0	0
	Miscellaneous Equipment	0	0	937,926	0	0
Materials	Materials and supplies, including spares	0	0	0	0	0
Sub-total Distribution Connection Assets		2,530,891	2,740,992	3,875,834	3,149,444	3,393,154
Regulated Retail Services Assets						
	Meters, Instruments & Metering Transformers	6,657,455	7,354,507	7,800,203	8,532,750	8,203,078
	Land and land rights	0	0	0	0	0
	Structures & improvements	0	0	0	0	0
	Office Furniture and Equipment	0	0	0	0	0
	Transportation Equipment	0	0	0	0	0
	Stores Equipment	0	0	0	0	0
	Tools, Shop and Garage Equipment	0	0	0	0	0
	Laboratory Equipment	0	0	0	0	0
	Information Systems	0	0	0	0	0
	Equipment	0	0	0	0	0
	Communication Plant and Equipment	0	0	0	0	0
	Miscellaneous Equipment	0	0	0	0	0
Sub-total Regulated Retail Services Assets		6,657,455	7,354,507	7,800,203	8,532,750	8,203,078
TOTAL CAPEX (CWIP included)		75,085,996	103,640,858	82,212,451	47,753,548	43,466,795

Note that in some cases negative amounts are indicated. This is as a result of allocation of proposed reductions, where it was not clear to exactly which line items these should have been made. The allocation per line is indicative only and Regulated Entities are not required to adhere strictly to these. Control and verification will occur based on total expenditure.

APPENDIX B : APPROVED OPERATING & MAINTENANCE EXPENDITURE

Opex Category and Sub-category		Forecast, nominal (regulatory year)	Forecast (peso, nominal) (Regulatory Year)				
		2009	2010	2011	2012	2013	
Distribution							
Operation	Operation supervision & engineering	1,461,776	1,717,723	1,949,778	2,246,276	2,604,619	
	Load dispatching	0	0	0	0	0	
	Structures	0	0	0	0	0	
	Substations	0	0	0	0	0	
	Overhead conductors & devices	16,279,059	18,027,046	19,187,310	20,440,948	21,815,651	
	Underground cables & devices	0	0	0	0	0	
	Streetlighting	0	0	0	0	0	
	Metering	0	0	0	0	0	
	Line (distribution) transformers	0	0	0	0	0	
	Rents	82,705	96,941	102,229	109,382	114,351	
	Information technology	394,236	970,770	431,310	481,974	594,382	
	Miscellaneous	264,332	-63,315	-741,312	-2,453,187	-4,301,507	
Maintenance	Maintenance supervision & engineering	791,793	988,632	1,167,589	1,345,141	1,559,728	
	Structures	0	0	0	0	0	
	Substations	1,551,846	2,102,292	2,969,269	3,103,997	3,577,812	
	Overhead conductors & devices	14,184,249	16,271,082	18,297,951	19,535,374	20,606,601	
	Underground cables & devices	0	0	0	0	0	
	Streetlighting	0	0	0	0	0	
	Line (distribution) transformers	0	0	0	0	0	
	Information technology	209,124	246,391	283,278	323,884	370,510	
	Metering	0	0	0	0	0	
	Miscellaneous	0	-403,454	-864,568	-1,353,680	-1,874,605	
Admin & Gen	Admin & general salaries	15,324,797	18,884,995	21,609,249	24,615,201	28,382,309	
	Office supplies & expenses	10,008,821	11,813,779	12,890,497	13,478,357	14,403,710	
	Information technology	1,076,888	1,240,441	1,390,017	1,551,024	1,734,346	
	Outside services employed	1,753,558	3,365,479	3,705,959	3,833,814	4,046,646	
	Property insurance	1,392,600	1,631,755	1,696,722	1,783,595	1,844,237	
	Injuries & damages	114,915	123,017	128,245	132,669	137,180	
	Employee pension & benefits	16,478,351	18,278,251	20,227,725	21,676,304	23,195,956	
	Regulatory liaison & compliance	3,329,582	2,194,849	2,456,719	2,555,980	4,200,055	
	Rents	666,692	1,291,389	1,503,998	1,555,886	1,608,786	
	Maintenance of office & general plant	594,181	815,425	982,161	1,078,230	1,197,122	
	Officers allowance & benefits	7,314,157	8,212,620	9,094,015	9,798,098	10,614,960	
	Travel	1,249,109	1,352,692	1,506,685	1,573,169	1,645,403	
	Training	3,703,012	2,538,493	2,469,603	2,595,850	2,654,815	
	Miscellaneous	-12,772,182	-15,589,014	-21,473,997	-26,420,926	-34,180,290	
WESM	Registration fees	0	0	0	0	0	

	Metering fees	0	0	0	0	0
	Billing & settlement fees	0	0	0	0	0
	Administration fees	0	0	0	0	0
	Costs for the PEM Board, committees & working groups	0	0	0	0	0
	Market management software & upgrades	0	0	0	0	0
	Sub-total Regulated Distribution Services	85,453,601	96,108,279	100,970,432	103,587,360	106,552,777
Distribution Connection Services						
Operation	Operation supervision & engineering	0	0	0	0	0
	Load dispatching	0	0	0	0	0
	Structures	0	0	0	0	0
	Overhead and underground connections	0	0	0	0	0
	Underground cables & devices	0	0	0	0	0
	Consumer installations	0	0	0	0	0
	Line (distribution) transformers	0	0	0	0	0
	Information technology	0	0	0	0	0
Maintenance	Maintenance supervision & engineering	0	0	0	0	0
	Structures	0	0	0	0	0
	Overhead and underground connections	0	0	0	0	0
	Underground cables & devices	0	0	0	0	0
	Consumer installations	0	0	0	0	0
	Line (distribution) transformers	0	0	0	0	0
	Information technology	0	0	0	0	0
	Miscellaneous	0	0	0	0	0
Admin & Gen	Admin & general salaries	0	0	0	0	0
	Office supplies & expenses	0	0	0	0	0
	Information technology	0	0	0	0	0
	Outside services employed	0	0	0	0	0
	Property insurance	0	0	0	0	0
	Injuries & damages	0	0	0	0	0
	Employee pension & benefits	0	0	0	0	0
	Regulatory liaison & compliance	0	0	0	0	0
	Rents	0	0	0	0	0
	Maintenance of office & general plant	0	0	0	0	0
	Officers allowance & benefits	0	0	0	0	0
	Travel	0	0	0	0	0
	Training	0	0	0	0	0
	Miscellaneous	0	0	0	0	0
	Sub-total Distribution Connection Services	0	0	0	0	0
Regulated Retail Services						
	Administration & management	1,548,883	1,575,282	1,827,906	2,104,060	2,423,591
	Plan, install & maintain consumer meter installations	12,004,484	12,791,944	12,918,177	13,562,295	14,268,828
	Consumer meter reading expenses	3,544,178	3,581,486	3,819,933	4,044,468	4,282,805
	Information technology	487,955	574,912	660,983	755,728	864,524

	Consumer records, billing & collection	8,313,460	7,010,783	7,626,533	8,107,781	8,625,014
	Bad debts	2,093,800	2,241,411	2,336,670	2,417,285	2,499,473
	Informational & instructional advertising	26,173	28,018	29,208	30,216	31,243
	Energy trading expenses (excluding energy purchases)	0	0	0	0	0
	Consumer prompt payment discounts	0	0	0	0	0
	Miscellaneous	-5,087,935	-1,221,569	-1,121,602	-1,305,334	-1,562,170
	Sub-total Regulated Retail Services	22,930,998	26,582,267	28,097,808	29,716,499	31,433,308
	Total Operating & Maintenance Expenditure	108,384,599	122,690,546	129,068,240	133,303,859	137,986,085

Note that in some cases negative amounts are indicated. This is as a result of allocation of proposed reductions, where it was not clear to exactly which line items these should have been made. The allocation per line is indicative only and Regulated Entities are not required to adhere strictly to these. Control and verification will occur based on total expenditure.

**APPENDIX C : APPROVED LEVIES, DUTIES AND OTHER TAXES
(OTHER THAN CORPORATE INCOME TAX) EXPENDITURE**

ILPI					
CY 2007-2011 Operating and Maintenance Expenditure Forecast (Total : PhP Nominal)					
Taxes, duties and levies (other than corporate income tax) - ERC allowed amount					
Category and Sub-category	Regulatory year	Forecast (peso, nominal in peso of regulatory year)			
	2009	2010	2011	2012	2013
Levies					
Regulatory Reset Expert Fees		1,646,560	630,939	208,427	0
Sub-total Levies		1,646,560	630,939	208,427	0
Duties					
Sub-total Duties					
Other taxes					
Business operation permits	10,299	10,737	11,109	11,485	10,299
Community tax	11,767	12,268	12,691	13,122	11,767
Other	93,174	76,953	80,224	82,991	85,813
Subtotal	93,174	99,020	103,228	106,791	110,420
Total Levies, Duties & other Taxes Expenditure	93,174	1,745,580	734,167	315,218	110,420