A Review of the Energy Tax on Electric Power Consumption*

I. INTRODUCTION

Electricity plays a pivotal role in nation building. With it, various sources of livelihood are created, delivery of services is improved which leads to the betterment of the lives of people. In recent years, technology has revolutionized the electricity sector. The outstanding performance of the economy demonstrated the importance of electricity to economic expansion. No doubt, electricity is an essential input to all economic activities.

Though life seems hard without electricity, people still tend to take it for granted. Considering the high cost of electricity, the Philippines ranks 42nd out of 132 countries in terms of electricity consumption based on 2009 estimates.[1] There is also no denying that the state of the country's power plants is already alarming and some of them are on their way to retirement. If the country does not invest on putting up new power plants with accompanying measures to conserve electricity, it is not farfetched that the country will again experience lingering and rotating power shortages just like in the early 1990s.

As early as 1979, the Philippine government had already passed Batas Pambansa Bilang 36 (BP Blg. 36) otherwise known as the Energy Tax on Electric Power Consumption to promote the efficient utilization of electricity. The energy tax is levied and collected on the monthly electric power consumption of every residential customer of electric power utilities of more than 650 Kilowatt-hour (KWh).

Batas Pambansa Blg. 36 has already been in existence for more than 30 years now and it is high time that a review of the said tax be conducted as there are those who believe that it should be scrapped since it is no longer viewed to be responsive and has become insignificant due to the rising demand for electricity. In view thereof, this study reviews the country's energy tax on electric power consumption to serve as inputs to fiscal policymakers.

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[1] CIA World Factbook, www.indexmundi.com/philippines/electricity_consumption.html, March 11, 2011.

II. BACKGROUND INFORMATION

A. Energy Supply: 2004 – 2010

Due to the increasing demand for electricity in the country and the skyrocketing prices of imported oil, ventures or initiatives in other sources of energy have become a major economic concern of the government. Thus, the government's energy development program shifted the country's reliance from imported fossil fuel like oil to alternative sources of energy which include hydroelectric, geothermal, natural gas, coal, and non-conventional sources such as solar, and wind power as well as biomass. **(Table 1)**

From 2004-2010, natural gas has the largest share of the country's energy production with 29%, followed closely by coal with 28%, and geothermal with 17%. It can be observed that the use of oil-based energy as a source of power generation has decreased. In 2010, oil-based energy usage decreased by almost 17% (7,101 Gigawatt-hour or GWh) as against the 2004 level of 8,504 GWh. Conversely, the reliance on natural gas as a major source of the country's power generation requirements was immediately felt in 2005 with a 36% (16,861 GWh) increase in power generation compared to the 12,384 generated in the previous year. Other alternative sources of power generation like wind and solar energy were utilized starting also in 2005 while biomass is still in its infancy in power generation with a total power generation of only 41 GWh from 2009-2010.

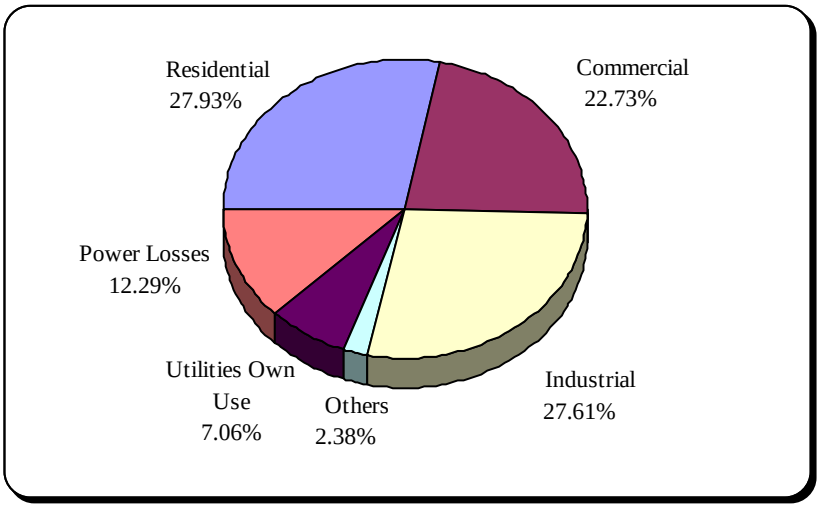
B. Electricity Consumption: 2004 – 2010

Electricity consumption kept on increasing every year. This was driven not only by the increase in the number of users and the intense increase in temperature but also due to the improvement of technology. The increasing number of gadgets like cellular phones, iPod, and laptop triggered the increase of household electricity consumption. Most of the electricity consumption went to Luzon grid and the least consumer of electricity was Mindanao. For the period 2004-2010, Luzon consumed 73% or 304,781.1 GWh of the total electric consumption of the country while Visayas and Mindanao islands utilized 14% or 60,394.4 GWh and 13% or 54,243.9 GWh, respectively.

The main consumers of electricity are the residential, commercial and industrial users. Among these three sectors, the residential sector consumed the biggest amount of electricity with an annual average electricity use of 16,734 GWh for the period under review, closely followed by the industrial sector (annual average of 16,546 GWh) mostly composed of the manufacturing, mining and construction, and then the commercial sector (annual average of 13,619 GWh). The rest of the country's electric power consumption went to power losses and to the distribution utilities own use. **(Table 2)**

Graphically, Figure 1 shows the average annual percentage distribution of total power consumption from 2004 – 2010. Residential and industrial sectors almost shared the same annual average percentage share of the total annual average power consumption for the period under review, however, the former shared 27.93% and the latter 27.61% The commercial sector followed closely with 22.73% while the remaining portion went to power losses (12.29%), distribution utilities own use (7.16%) and others (2.38%).

Figure 1. AVERAGE ANNUAL PHILIPPINE ELECTRIC CONSUMPTION BY SECTOR: 2004-2010



C. Distribution and Sales of Electricity

As of 2010, the distribution and sale of electricity to end-users throughout the country is undertaken by 144 distribution utilities, composed of 120 Electric Cooperatives (ECs), 16 Private Investor-Owned Utilities (PIOUs) and eight (8) Local Government Unit-Owned Utilities (LGUOUs). Among the 120 ECs in the country, 56 (or 47%) are located in Luzon; 31 (or 26%) in the Visayas and the remaining 33 (or 27%) are situated in Mindanao. On the other hand, eight (8) out of the 16 PIOUs are found in Luzon; and four (4) each in the Visayas and Mindanao. Meanwhile, out of eight (8) LGUOUs, five (5) are situated in Luzon; two (2) in the Visayas; and one (1) in Mindanao.

The Manila Electric Company (Meralco) is the Philippines' largest distribution utility with a franchise area of 9,337 square kilometers covering Metro Manila, the entire provinces of Bulacan, Rizal and Cavite; parts of the provinces of Laguna, Quezon and Batangas; and 17 barangays in Pampanga. The franchise area is home to 23 million people, roughly a quarter of the entire Philippine population of 89 million.[2] **Table 3** depicts Meralco's number of customers covering the period of 2004 – 2010.

[2] http://www.firstgen.com.ph/PowerIndustry.php?id=34

From the 4.21 million yearend count of Meralco's customers in 2004, the number went up to 4.85 million in 2010, resulting to an average annual increase of 2%. The number of residential customers consistently increased throughout the period under consideration as compared to commercial customers which declined in 2010. Industrial customers, on the other end, slipped all the way from 2005-onwards, posting a 9% decline from the 2004 number of customers to 2010. On the other hand, streetlights fell from 2005-2007 but managed to post positive growth rates starting 2008 though still failing to reach a record in 2004. Statistically, the residential sector is the biggest customer of Meralco taking up 90.87% of Meralco's total number of customers. The commercial sector shared only 8.97%, while the industrial sector and streetlights, 0.2% and 0.1%, respectively.

Table 4, on the other hand, shows Meralco's energy sales (in KWh) to its residential, commercial, industrial customers and for streetlights for the period 2004-2010.

It was in 2007 when Meralco's energy sales went up by almost 5% brought about by the 3.4%, 6.0% and 4.3% increases in sales from its residential, commercial and industrial, customers, respectively. The year 2010 showed the highest energy sales of Meralco with a 10% growth when all its customers registered significant increases in energy sales except for streetlights which only managed to increase by 1.17% as against the 1.16% increase in the previous year.

D. Energy Tax on Electric Consumption

The Energy Tax on Electric Power Consumption was legislated through BP Blg. 36. More specifically, the law imposes an energy tax on the monthly electric power consumption of residential customers using more than 650 KWh. The tax was designed to conserve and promote efficient utilization of energy. The tax rates were structured in such a way that high income consumers bear a heavier tax burden in accordance with the ability-to-pay principle of taxation. **(Table 5)**

The energy tax is only a pass-through charge. Hence, power utilities serve only as collecting agencies of the government for the said tax. The energy tax is paid to and withheld by electric utilities from their respective residential customers along with their monthly electric billings. The electric utility, within twenty (20) calendar days after the end of each calendar month in which the tax is collected, shall file a true and correct return with the Commissioner of Internal Revenue and remit within the same period the total amount of tax collected.

The energy tax forms part of the revenue collection of the Bureau of Internal Revenue (BIR) and is classified as a miscellaneous tax grouped under the category of "Other Taxes".[3] **Table 6** shows the BIR energy tax collections for the period covering 2004 – 2010.

[3] The energy tax is lumped together with other miscellaneous taxes which include Income from Forfeited Properties, Proceeds from Resale of Estate Taxes, Certification Fees, Deficiency Taxes replaced by VAT.

Table 5. RATES OF ENERGY TAX UNDER BP BLG. 36

Monthly KWh Consumption	Rate per KWh
Not over 650 KWh	Exempt
Over 650 KWh but not over 1,000 KWh	₱ 0.10 per KWh in excess of 650 KWh
Over 1,000 KWh but not over 1,500 KWh	₱ 35.00 plus ₱ 0.20 per KWh in excess of 1,000 KWh
Over 1,500 KWh	₱ 135.00 plus ₱ 0.35 per KWh in excess of 1,500 KWh

OUTSIDE METRO MANILA	
If the electric power rates (excluding the energy tax) are equal to or higher than the electric power rates (including the tax) prevailing in Metro Manila	Exempt
If the prevailing electric power rates (excluding the energy tax) are less than the prevailing electric power rates (including the energy tax) in Metro Manila	The tax is equal to the difference or the full amount of energy tax, whichever is lower.

Table 6. REVENUE COLLECTION FROM ENERGY TAX ON ELECTRIC CONSUMPTION, 2004 – 2010*
(In Million Pesos)

Year	Energy Tax Collection	Percentage Growth Rate
2004	524.34	-
2005	244.16	(53.43)
2006	325.83	33.45
2007	237.28	(27.18)
2008	240.95	1.55
2009	247.73	2.81
2010*	268.51	8.39
TOTAL	**2,088.80**	**-**
Average	**298.40**	**-**

* Preliminary Energy Tax Collection

Source: Statistics Division, Bureau of Internal Revenue (BIR).

The BIR collected ₱524.34 million worth of energy tax in 2004, the highest energy tax collection in the 7-year period under review. However, after the highest collection in the said year, energy tax collection dropped drastically by more than half (53%) in 2005 and again by 27% in 2007 which was at the same time the lowest energy tax collection throughout the seven–year period. After 2007, the energy tax collections gradually went up until 2010.

Out of the ₱2.09 billion energy tax collected by the BIR from 2004-2010, 52% (₱1.09 billion) was collected by Meralco from its residential customers. **(Table 7)** The remaining 48% of the energy tax collection is assumed to be collected by the 143 distribution utilities spread all over the country.

Table 7. MERALCO's ENERGY TAX COLLECTION, 2004 – 2010

Year	Energy Tax Collection	Percentage Growth Rate
2004	160,823,441.40	-
2005	147,524,713.60	(8.27)
2006	139,454,064.40	(5.47)
2007	153,385,124.95	9.99
2008	146,282,555.55	(4.63)
2009	152,328,688.45	4.13
2010	188,319,565.70	23.63
TOTAL	**1,088,118,154.05**	-
Average	**155,445,450.60**	-

Source of basic data: Meralco.

It can be gleaned from Table 7 that Meralco's energy tax collection is moving erratically with negative growth seen in 2005, 2006 and 2008. The highest collection was made in 2010 with a 24% increase (₱188.3 billion) against the ₱152.3 billion collected in 2009.

III. COMMENTS AND OBSERVATIONS

A. Residential Power Consumption

1. Based on a study made in October 2010 by the International Energy Consultants, an independent think-tank, the Philippines now has the most expensive

electricity in Asia with an average retail rate of electricity of 18.1 US cents per KWh, easing out Japan at the top. As of the same month last year, electricity rate in Japan was at 17.9 US cents per KWh.[4] However, even with the high cost of electricity, the Philippines ranks 42nd out of 132 countries in terms of electricity consumption using 2009 estimates.[5] In fact, from 2003-2010, the country has consistently occupied the 42nd to 45th positions under the survey conducted by the Central Intelligence Agency (CIA) World Factbook.[6] For this year alone, the CIA has assumed that the country's electricity consumption will reach 54.4 billion KWh, based on 2009 estimates.[7] The facts show that while electricity rate in the country is expensive, Filipino electric consumers are either not using electricity wisely or are simply not conscious of the cost of electricity.

2. Among the three main users of electricity in the country, it is assumed that the residential customers are the ones likely to practice wasteful and luxurious consumption of electricity especially those belonging to the middle and high income groups. Also, based on the Energy Statistics Database of the United Nations Statistics Division, the electric consumption of Philippine households ranks 38th among 196 countries with a total electric consumption of 16.031 billion KWh based on 2005 estimates.[8] This ranking may be said to be high especially since most of the countries holding the top positions are considered to be industrialized countries.

3. Based on the Household Energy Consumption Survey (HECS) held in October 2004 and conducted by the National Statistics Office (NSO), out of 14.6 million households in the country, space cooling/air conditioning and recreation (with appliances of colored TV, laser disc/DVD/VCD, stereo and karaoke/musicmate) are the second and third, respectively, highest electricity usage. (ANNEX A) The results of the survey reveal that 85% of Filipino households (12.442 million out of 14.571) consume electricity for recreation purposes wherein 51% or 2.11 million KWh out of the 4.15 million KWh total electricity consumption spent on recreation purposes was used for watching colored TV, followed by 16% (666,758 KWh) for stereo and 15% (633,528 KWh) for karaoke/musicmate. On the other hand, almost 6% only of the total households use air conditioner, consuming 3.36 million KWh or 53% of the 6.28 million KWh total electricity consumption for space cooling/air conditioning. Given this, it is important for the government to introduce ways and means for residential electric consumers to become more responsible in the use of electricity to help lower electricity consumption at home.

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[4] http://www.philstar.com/Article.aspx?articleId=655008&publicationSubCategoryId-66, February 7, 2011.

[5] www.indexmundi.com/philippines/electricity_consumption.html, March 11, 2010.

[6] Ibid.

[7] Ibid.

[8] http://www.nationmaster.com/graph/ene_ele_con_by_hou-energy-electricity-consumption-by-households, Copyright 2003-2011.

B. Responsiveness to Changes in Electricity Cost

4. Several literature point out that the demand for electricity is generally inelastic. That is, quantity demanded is relatively unresponsive to change in price or a price change causes less of a change in quantity demanded. The demand for electricity is not sensitive to price change especially since the price of electricity is constantly changing due to several factors (price of oil, peso-dollar exchange rate, supply of oil coming from oil exporting countries, etc.). However, it is also said that the more inelastic the level of demand is, the more of the tax burden is likely to fall on consumers.

5. It may also be noted that consumers will only be sensitive to any change in electricity consumption given the following reasons:[9]

5.1 Greater number of substitutes

It is almost impossible for people to function without the aid of electricity. Given this, electricity can never be replaced since it has no available perfect substitute.

5.2 Greater proportion of consumer's budget

It cannot be denied that the more affluent consumers are, the higher their electric consumption will be. While the opposite can be said of those belonging to the marginalized sector of the economy, that is, they consume less electricity since they have less capital stock (household appliances). Therefore, the level of electricity consumed can be used as a parameter for one's standard of living.

5.3 Degree of necessity or luxury

Electricity is a necessity and no matter how much the cost of electricity is, consumers will never cease from using the same. This is because electricity is regarded to be a normal good, wherein a big increase in price would only result to a small change in quantity demanded.

5.4 Greater amount of time consumers have to adjust to a change in price

Changes in electricity prices have little influence on investments in household appliances. Consumers would be more responsive to a change in price over longer periods of time because they have greater opportunities to adjust their behavior and capital stock to changes in price and price structures.[10]

[9] Brandt Stevens and Lionel Lerner, "Testimony on the Effects of Restructuring on Price Elasticities of Demand and Supply", California Energy Commission, July 17, 1996.

C. Proposed Changes To the Energy Tax

6. As earlier stated, BP Blg. 36 has already been in existence for thirty-one years now. It is believed that the energy tax structure has already achieved or failed its purpose of promoting efficiency in electric consumption, that is, if the tax has really served as a block to further electricity usage. Experience suggests otherwise, however. The rates or tariffs (which include the energy tax) do not appear as a deterrent to the use of electricity, whether from an efficient or inefficient perspective. Aside from the main objective behind the imposition of the energy tax in optimizing electric consumption, there is now a more compelling reason to examine the tax structure to take into consideration the need to raise additional revenue for the government.

7. For 2010, the typical month for Meralco regarding its residential customers is April and the distribution thereof as well as its KWh consumption is as follows:

Table 9. MERALCO's RESIDENTIAL CUSTOMERS AND KWh CONSUMPTION (Typical month of April 2010)

Monthly KWh Consumption	Number of Customers	Share to Total No. of Customers	KWh Consumption	Share to Total KWh Consumption
0 – 350	3,740,604	87.2	472,973,821	56.7
351 – 500	275,259	6.4	113,904,259	13.6
501 – 650	112,930	2.6	63,934,614	7.7
651 – 1,000	97,502	2.3	76,894,851	9.2
1,001 – 1,500	39,128	0.9	46,932,508	5.6
1,501 – 3,000	21,625	0.5	42,626,567	5.1
Over 3,000	3,866	0.1	17,361,402	2.1
TOTAL	4,290,914	**100**%	834,628,022	**100**%

Source of basic data: Meralco.

8. **Table 9** shows that 3.78% of Meralco's total residential customers consumed more than 650 KWh, and thus, are subject to energy tax. Kilowatt-hour consumption of said customers totalled 183,815,328 KWh or 22% of the 834,628,022 KWh total electricity consumption for all residential customers.

9. Meralco views BP Blg. 36 as ineffective since compared to the 650 KWh threshold of said law, the average electricity consumption of residential customers within the Meralco franchise area is only 180 KWh per month. In the less developed

[10] Ibid.

areas of the country, the average would probably be even lower.[11] Moreover, the power consumption of residential customers using more than 650 KWh monthly represents only a small portion of the total electricity usage in Meralco. Therefore, since the law targets such a small subset of electricity consumers (3%), its effectiveness as an energy conservation mechanism would be highly questionable.[12]

10. Meralco also opined that since other electric rate mechanisms are already in place to incentivize residential energy conservation,[13] said tariffs serve as a more effective guide to customers as regards reducing energy usage during times when the cost of generation is high. Also, there is the residential distribution charge (as fixed by the government) which is already structured in such a way that heavy users of electricity are charged higher rates. In fact, the present consumption threshold or brackets of the said residential distribution charges are higher than what is provided for by BP Blg. 36, thus, making the former a more effective price signal for end-users to reduce consumption and rendering BP Blg. 36 as redundant or superfluous.

11. It may not be tenable, however, to take a stance that since the energy tax captures only 3.78% of Meralco's customers or any distribution utility's customers, then the said tax is already ineffective. The importance of energy conservation cannot be overemphasized especially since sources of energy are considered scarce and costly. Also, any amount of revenue collected can never be considered insignificant because of its multitudinous benefits to the country especially since no new taxes are to be imposed in this year as President Benigno S. Aquino III had pledged during his election campaign not to levy new taxes in his first 18 months in office. Moreover, it is not advisable to forego taxes at a time when the Philippines has the lowest tax effort in Asia. The Philippine's tax effort in 2010 was 12.85%, which is way below the Southeast Asian average of 16%. Further, since the energy tax is based on ability to pay, it is important for the government to optimize the imposition of the energy tax in order to capture those belonging to the affluent members of the economy. In view thereof, there is a need to amend the structure of the energy tax in order to make it responsive and relevant to the present condition. Given this context, **Table 10** illustrates the proposed energy tax structure.

12. Compared to the present energy tax, the proposal added two more brackets, i.e., those consuming 1501 KWh to 3,000 KWh and over 3,000 KWh. Table 10 presents the two proposals with increase in tax rates of 100% and 200% over the present tax structure. The proposal is aimed to broaden the tax base of the energy tax on electric power consumption in order to incorporate price inflation as a factor in the cost of consuming electricity. Moreover, since the tax is based on ability to pay, heavy users of electricity would now have to pay more. Thus, this would encourage residential customers to become more prudent in using electricity. The estimated revenue to be collected using Meralco's typical month for 2010 is shown in **Table 11**.

[11] Meralco's Position Paper: ENERGY TAX ON ELECTRIC CONSUMPTION, February 2011.

[12] Ibid.

[13] For instance, Time-of-use (TOU) tariffs which differentiate the generation charge according to the time interval in which electricity is used.

Table 10. PROPOSED ENERGY TAX RATES VS. PRESENT TAX RATES

Monthly KWh Consumption	BP. Blg. 36	Proposed Structure of Energy Tax	
		PROPOSAL A (100% Increase)	PROPOSAL B (200% Increase)
0 – 300	Exempt	Exempt	Exempt
351 – 500	Exempt	Exempt	Exempt
501 – 650	Exempt	Exempt	Exempt
651 – 1,000	P0.10 per KWh in excess of 650 KWh	P0.20 per KWh in excess of 650 KWh	P0.30 per KWh in excess of 650 KWh
1,001 – 1,500	P35 plus P0.20 per KWh in excess of 1,000 KWh	P70 + P0.40 per KWh in excess of 1000 KWh	P105 + P0.60 per KWh in excess of 1000 KWh
1,501 – 3,000	P135 plus P0.35 per KWh in excess of 1,500 KWh	P270 + P0.70 per KWh in excess of 1500 KWh	P405 + P1.05 per KWh in excess of 1500 KWh
Over 3,000	P135 plus P0.35 per KWh in excess of 1,500 KWh	P1,320 + P0.90 KWh in excess of 3,000 KWh	P1,980 + P1.80 KWh in excess of 3,000 KWh

Table 11. ESTIMATED INCREMENTAL REVENUE

TAX BASE	TOTAL KWh CONSUMPTION	NUMBER OF CUSTOMERS	ESTIMATED ENERGY TAX UNDER THE PRESENT TAX STRUCTURE	PROPOSED ENERGY TAX	
	(As of April 2010)			PROPOSAL A (100% Increase)	PROPOSAL B (200% Increase)
0 – 350	472,973,821	3,740,604	EXEMPT	EXEMPT	EXEMPT
351 – 500	113,904,259	275,259	EXEMPT	EXEMPT	EXEMPT
501 – 650	63,934,614	112,930	EXEMPT	EXEMPT	EXEMPT
651 – 1,000	76,894,851	97,502	1,355,278	2,710,556	4,065,833
1,001 – 1,500	46,932,508	39,128	2,926,774	5,853,549	8,780,323
1501 – 3000	42,626,567	21,625	6,484,256	12,968,513	19,452,769
Over 3,000	17,361,402	3,866	4,569,032	10,290,905	18,030,251
MONTHLY TOTAL	**834,628,022**	**4,290,914**	**15,335,340**	**31,823,523**	**50,329,176**
ESTIMATED ANNUAL ENERGY TAX			**184,024,080**	**381,882,276**	**603,950,112**
INCREMENTAL REVENUE				**197,858,196**	**419,926,032**

13. The revenue to be collected under Proposal A is 108% higher than the estimated energy tax collected by Meralco in April 2010 resulting to an additional annual revenue for the government amounting to ₱198 million. On the other hand, Proposal B, is higher by 228% and would generate an annual incremental revenue of ₱420 million. Since Meralco's energy tax collection constitutes 52% of BIR's energy

tax collection, Proposal A will yield a total annual incremental revenue to the government amounting to ₱380 million and Proposal B, ₱808 million.

14. The said incremental revenue under the proposed energy tax (either under Proposal 1 or 2) can be tapped by the government to beef up its environmental protection program to mitigate the pollution caused by power plants and/or projects relative to energy conservation and power generation. In this way, the government would not have to collect any environmental charge on the electric bill of residential consumers for the rehabilitation and maintenance of watershed areas surrounding hydroelectric plants and/or programs/projects that would provide solution to power shortages in the coming years.

15. As the proposal is aimed at higher electricity users and consequently those with bigger income levels, the tax will not result in any adverse repercussions on the low-income earners.

D. Other Factors Affecting Electricity Prices

16. There is no denying that part and parcel of the consumer's electric bill is the tax component of electricity which impacts on the customers' purchasing power. One of these taxes is the Value Added Tax (VAT) which was imposed on electricity in November 2005. However, the imposition of VAT was mitigated by the scrapping of the national franchise tax imposed on electric utilities. Hence, the inflationary impact of the VAT on electric consumption is deemed minimized. The VAT is imposed on the gross selling price of goods sold and in the case of electric consumption of residential customers, it is the total amount of the sale of electricity which includes generation charge, distribution charge, system loss charge, subsidies and local franchise tax. The other tax imposed on the sale of electricity is the local franchise tax, although not all customers pay the said tax since the imposition thereof is left to the discretion of the local government units concerned. The local franchise tax is identified as a separate line item on the customer's bill and computed as a percentage of the sum of all charges, except taxes and the universal charge.[14] Both the VAT and the local franchise tax comprise about 10% of a typical monthly electric bill of residential customers with an average monthly electric consumption of less than 500 KWh.

17. The rest of the charges in the electric bill payment goes to miscellaneous charges which consist of more or less ten different charges and subsidies that take care of the maintenance and/or upkeep of Meralco and/or the National Power Corporation (NPC) as well as recovery of power losses, etc. The following are the other charges imposed by Meralco on its residential customers:

17.1 *Generation charge* is the cost of power generated and sold to Meralco by its suppliers, NPC, the Independent Power Producers (IPPs) and the Wholesale Electricity Spot Market (WESM). It is a pass-through

[14] Meralco Annual Report, 2009.

component of the Meralco bill. The level of the Generation Charge is adjusted on a monthly basis as prescribed by the Energy Regulatory Commission (ERC) in its Order dated October 13, 2004 under ERC Case No. 2004-322 approving the "Guidelines for the Automatic Adjustment of Generation Rates and System Loss Rates by Distribution Utilities" or the AGRA.[15] On the June 2011 billing month of Meralco, the generation charge is fixed at a rate of ₱5.5265 per KWh for residential and general service A customers of Meralco. It is considered to be the biggest component in Meralco's billing with more than 50% of the total bill.

17.2 *Transmission charge* is for the cost of the delivery of electricity from generators, usually located in remote areas or provinces to the distribution system of Meralco. This charge goes to the National Grid Corporation of the Philippines (NGCP). Transmission Charges are adjusted on an annual basis.[16] The transmission charge for the month of June 2011 is ₱1.0154/KWh and is added to the monthly bill of residential customers of Meralco. Transmission cost shares more than 6% of Meralco's monthly billing.

17.3 *Distribution charge* covers the cost of developing, building, operating and maintaining the distribution system of Meralco, which brings power from high-voltage transmission grids, to commercial and industrial establishments and to residential end-users. The rates for residential customers are as follows:

Distribution Charge (per KWh)*	
0 - 200 KWh	P0.9300
201 - 300 KWh	P1.3383
301 - 400 KWh	P1.7235
401 KWh and up	P2.3943

*As of June 2011 Billing Month

17.4 *Supply Charge* refers to the cost of rendering services to customers, such as billing, collection, customer assistance and associated services. A fixed rate of P21.12 per customer per month and an additional P0.6349 per KWh are to be paid by residential customer for the supply charge.[17]

17.5 *Metering Charge* includes the cost of reading, operating and maintaining power metering facilities and associated equipment, as well as other costs attributed to the provision of metering service. As of June 2011, the metering charge is fixed at a rate of ₱5.00 per customer per month and an

[15] http://www.meralco.com.ph/meralco/Corporate/rates/gentrans.htm.

[16] http://www.meralco.com.ph/meralco/Corporate/rates/gentrans_January2010.htm.

[17] http://meralco.com.ph/pdf/rates/2011/June/Summary_Schedule_rates_June2011.pdf .

additional P0.4658 per KWh consumption for residential customers.[18] Presently, Meralco's distribution charge is more than 20% of its monthly billing.

17.6 *System loss charge* represents cost recovery for the cost of power lost due to technical and non-technical system losses and is adjusted on a monthly basis. The level of losses that may be recovered was set at a maximum of 9.5% for private distribution utilities under Republic Act (RA) No. 7832 or the Anti-Electricity and Electric Transmission Lines/Materials Pilferage Act of 1994. However, on December 8, 2008 the ERC promulgated Resolution No. 17, Series of 2008, entitled "A Resolution Adopting a New System Loss Cap for Distribution Utilities", which lowered the maximum rate of system loss (technical and non-technical) that a private utility can pass on to its customers to 8.5% starting January 2010, one percentage point lower than the previous cap of 9.5%.[19] While electric cooperatives have a system loss cap of 14%.[20]

From 2004 – 2010, on average, 12.29% of total electricity consumption goes to power losses (Figure 1). Based on the June 2011 billing month of Meralco, system loss charge is at a fixed rate of ₱0.6608/KWh for residential customers or approximately 6% of total billing.

17.7 *Universal Charge* is a non-bypassable charge remitted to the Power Sector Assets and Liabilities Management Corporation (PSALM), owned and controlled by the government, and created under RA. 9136. At present, the universal charge includes the missionary electrification charge[21] and environmental charge[22] at a rate of ₱0.0454/KWh and ₱0.0025/KWh, respectively. Universal charges share 0.5% of the total billing of residential customers.

17.8 *Lifeline Subsidy Charge* is paid by residential customers consuming more than 100 KWh of electricity per month and is the source for funding the Lifeline Subsidy. The Lifeline Subsidy is a socialized pricing mechanism provided for by Section 73 of the EPIRA. In the case of Meralco, residential customers using up to only 100 KWh or less in a given month enjoy a Lifeline Discount to be applied to the generation, transmission, system loss, distribution, supply and metering charges. The discount

[18] Ibid.

[19] Meralco Annual Report, 2009.

[20] http://meralco.com.ph/meralco/corporate/rates/system_loss_performance.htm.

[21] Missionary Electrification Charge – is mandated by the Electric Power Industry Reform Act of 2001 (EPIRA) to fund the electrification of remote and unviable areas not connected to the transmission system.

[22] Environmental Charge is mandated by the EPIRA for the rehabilitation and maintenance of watershed areas surrounding hydroelectric plants for sustained power generation.

varies according to consumption: (a) 0 to 20 KWh, 100%; (b) 21 to 50 KWh, 50%; (c) 51 to 70, 35%; and 71 to 100 KWh, 20%. The rate of the Lifeline Subsidy is P0.1210 per KWh.

17.9 *Cross Subsidy Charge* refers to the collection of under recoveries in the Inter-class Cross Subsidy in accordance with ERC Order in ERC Case No. 2007-157 dated November 16, 2009. The Inter-class Cross Subsidy Charge was imposed on industrial and commercial end-users in order to reduce electricity rates of other customer sectors such as residential end-users, hospitals, streetlights and charitable institutions but was fully removed in November 2006. However, Meralco was not able to recover in full from subsidizing customers the subsidy it had advanced to the subsidized sectors so it applied for an authority from the ERC to recover the amount of ₱1,048,541,216.00 equivalent to ₱0.0103 per KWh. The ERC approved the application of Meralco to recover said amount until such time that the amount shall have been fully recovered.

17.10 *Senior Citizen Subsidy Charge* is imposed on subsidizing end-users, i.e., residential customers consuming more than 100 KWh at a rate of ₱0.0001 per KWh. The Senior Citizen Subsidy is granted to registered senior citizens with a monthly consumption not exceeding 100 KWh at a minimum 5% discount on their monthly electric bill pursuant to the Expanded Senior Citizens Act of 2010 (RA No. 9994, dated February 16, 2011). Meralco implemented the discount starting with the February 2011 billing.

18. All of the above charges go to the coffers of Meralco, except the VAT, local franchise tax and universal charge which are collected on behalf of the national and local governments and thus do not form part of Meralco's revenues. Given the foregoing discussions, it can be said that the tax component of electricity consumption comprises only a small portion of the total electric bill compared to the wide array of charges imposed by electric utilities. Attention should be focused on reducing these charges if the objective is to lessen the burden and cost of electricity being paid by consumers, especially those at the lower end of the income spectrum. Incidentally, there is also a proposal to revert the electricity industry to the 3% franchise tax rather than subject it to the 12% VAT also for the same reason. Abolishing the energy tax or arguing about its impact on electricity usage does not seem to be a step in this direction.

E. Energy Tax in Other Countries[23]

19. Some States in the USA collect a tax similar to the Philippines' energy tax on electric consumption. The imposition is however, referred to as a consumer utility tax and not as an energy tax. These States include Virginia, Ohio, Illinois, New Hampshire, and Colorado. However, unlike in the Philippines, these States collect the consumer

[23] Refer to ANNEXES B and C for the list of energy tax/electricity consumption tax imposed in the USA and OECD countries.

utility tax not only from the residential sector but also from the commercial and industrial sectors. Also, most of the States which impose a consumer utility tax has a single tax rate except for Illinois and Ohio which impose a graduated consumer utility tax similar to the energy tax structure of the Philippines.

20. The OECD member-countries also levy taxes on electricity consumed to protect the environment and to discourage polluting activities and wasteful consumption. Among the OECD member-countries, the Netherlands imposes a graduated energy tax, similar to the Philippines. However the tax is based on annual electric consumption for the business and non-business use of electricity. In Austria, an energy tax is also collected for electricity consumed. In Spain, a tax is imposed on the production or importation of electricity. In Italy, other than electricity consumption on industrial and private dwellings, an additional tax on electricity is also imposed on electricity consumed for estate properties other than dwellings. The tax rates in Italian towns/provinces are much lower compared to the tax imposed in Italian States. In Japan, there is a power resource development tax levied on electric consumption. On the other hand, United Kingdom's Climate Change Tax subjects electric consumption to such tax based on ordinary and reduced rates. Similar to other OECD member-countries, Bulgaria, Finland, Latvia, Lithuania, Romania, Slovenia, a tax on electricity consumed for business (e.g., manufacturing) and non-business used is imposed in the form of a fuel excise tax. On the other hand, the energy tax imposed on electricity used for business and non-business purposes in Belgium, Denmark, Germany and Slovak Republic is in the form of duties on electricity.

IV. CONCLUSION & RECOMMENDATIONS

The energy tax on electric consumption under BP Blg. 36 is presently imposed on residential sector with monthly electric consumption of more than 650 KWh. The increased consumption of electricity and the need to raise government's revenue are issues prompting the need to review the energy tax on electric consumption.

Among others, the review considers the performance of the energy tax vis-a-vis the original intention for its imposition which is to conserve and promote efficient use of electricity.

Based on available data and literature review, it appears that the tax has not been able to live up to government's expectations.

For instance, electricity consumption has generally been on an uptrend. This phenomenon is quite logical. Lifestyles have, after all, been completely transformed and life's requirements or amenities significantly increased. As a consequence, electricity consumption has likewise increased.

As far as electricity use is concerned, the energy tax has not had any bearing thereon. Moreover, there is a clamor to repeal BP Blg. 36 because it is already ineffective as an energy

conservation mechanism because it only targets 3% of electricity consumers and is redundant to other electric rate mechanisms in place. However, the smallness of the tax is not enough reason to render the energy tax ineffective. The importance of energy conservation cannot be overemphasized due to the scarcity and cost of energy sources. The revenue generated by the tax no matter how small can also be used to augment government's overall revenue intake considering the various expenditure programs that have to be financed by the government.

Thus, to make the energy tax more responsive and relevant to the present condition, it is proposed that its structure be amended. It is proposed that two more brackets be added to broaden the tax base and increase the tax rates by 100% or 200%. The 100% increase in the tax rates will yield an annual incremental revenue of P380 million to the government, while the 200% increase will yield ₱808 million. The revenue generated can be used by the government to finance its environmental projects. Thus, the government does not have to collect the environmental charge being paid by residential electricity consumers, thereby, lowering the monthly electricity expenditure of the latter.

The need to amend BP Blg. 36 is viewed to be urgent not only due to the increasing revenue requirements of the government but more so because of the need to strengthen efforts on energy efficiency and conservation program to address the growing demand for electricity and ensure that its use is optimized and sustained not only for the present generation but for succeeding generations, as well.

Lastly, there are a number of charges comprising the cost of electricity, thus, there is also a great need to review these charges and determine which can be phased out in order not to unduly burden electricity consumers. As an example, system loss, which comprises 12.3% of the annual Philippine electric consumption from 2004-2010, is approximately 6% of total residential billing is considered to be burdensome especially since it is subject to VAT. Its proportion to electricity cost should perhaps be reduced. A similar observation may be made for the generation charge which is more than 50% of total billing and again subject to VAT.