

Reducing Power Rates in the Philippines

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Introduction

The competitiveness of the Philippines is being undermined by the high cost of electricity. Understanding the factors why power rates in the Philippines is so high is the first step to solve this problem. In the context of the restructured electric power industry which unbundled the generation, transmission, distribution, and supply function and business and where a competitive electricity market exists, the power rates in the Philippines can be reduced through a proper power supply procurement process.

Power Rates in the ASEAN Region

Comparison of Power Rates

The power rate in the Philippines is one of the highest in the world and is second highest in Asia, next only to Japan. In the Association of Southeast Asian Nations (ASEAN) region, the power rate in 2011 for residential consumers in the Philippines is about twice the average price, and is the highest in the region as shown in figure 1.

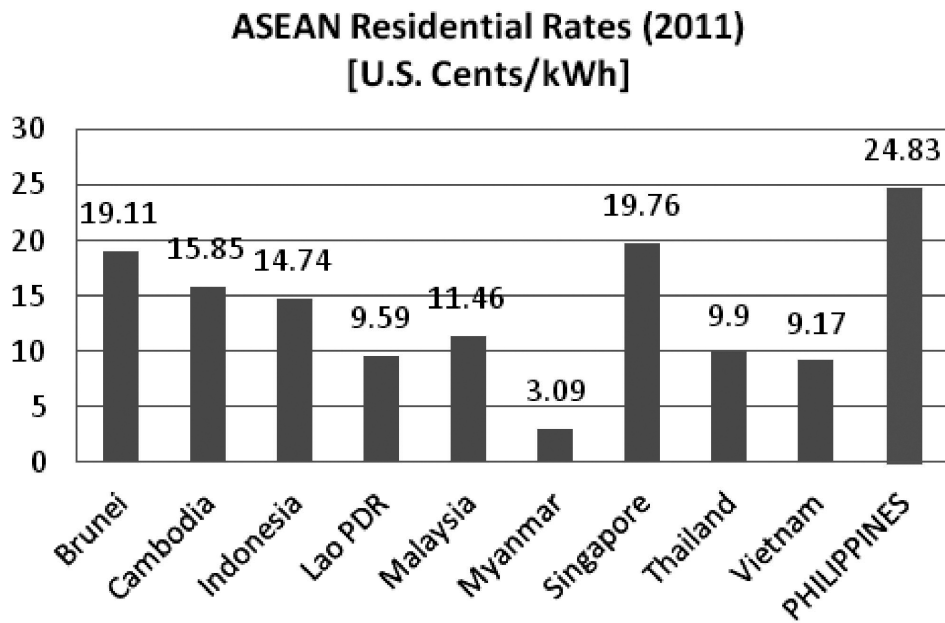


Figure 1: Power Rates for Residential Consumers in ASEAN

Source: Data from Japan International Cooperation Agency-Institute of Energy Economics, Japan (2013)

Households Electricity Consumption

The per capita power consumption as calculated from electricity consumption in the residential sector and the population from 2000 to 2011 is shown in figure 2. It can be noted that the household electricity consumption intensity in the Philippines, Indonesia, and Vietnam in 2000 was similar, but the Philippines has lagged behind its neighboring countries after 10 years. The Philippines' per capita household consumption of 197 kWh in 2011 is significantly lower than the 1,323 kWh of Singapore, a country with a high economic standard. Indonesia, with the same economic level as the Philippines, has a much higher household consumption intensity at 272 kWh. In Vietnam, a country on a lower economic level, households consumed 380 kWh per capita. This is twice the intensity in the Philippines, implying more improvements in the quality of life in Vietnam.

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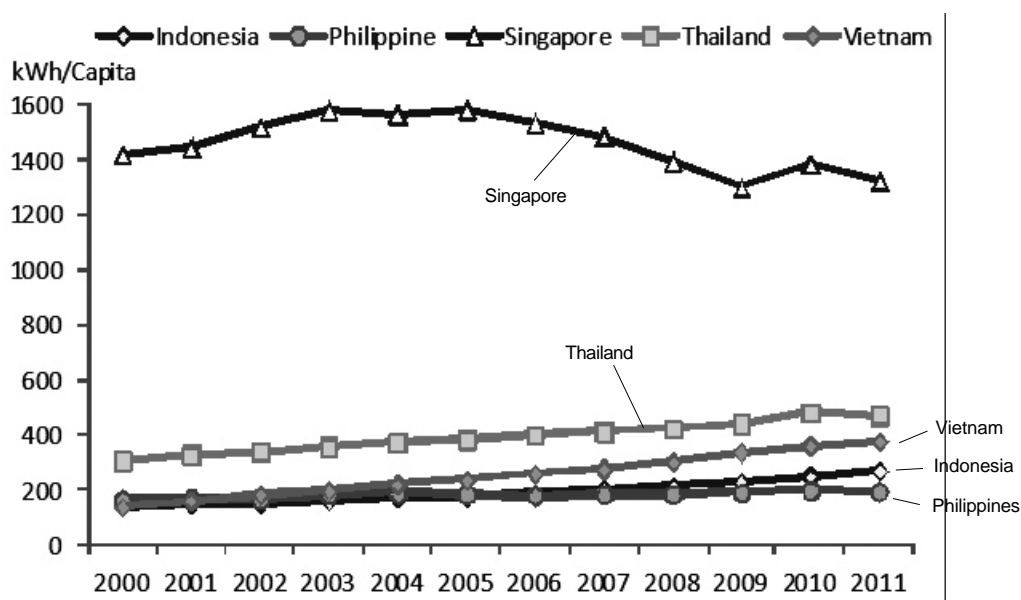


Figure 2: Residential Power Consumption Per Capita in ASEAN

Source: *Japan International Cooperation Agency-Institute of Energy Economics, Japan(2013)*

Households Expenditures for Electricity

On the other hand, Philippine households, which are poorer compared to those in Singapore and Japan, are spending more for power. As shown in figure 3, the ratio of power consumption spending to per capita household expenditures in the Philippines is very high at 3 percent whereas the ratio in Japan is only 1.9 percent. Thus it may be inferred that the very low per capita residential consumption in the Philippines is very much affected by the high cost of electricity.

Continuing Power Rate Hikes in the Philippines

Power Rates after Power Industry Restructuring

In an attempt to solve the high power cost in the Philippines, Republic Act No. 9136, the Electric Power Industry Reform Act of 2001, was enacted into law by the Philippine Congress. However, the power rates in the Philippines continued to increase at a 6 percent average annual rate from 2000 to 2009, as shown in figure 4.

Del Mundo

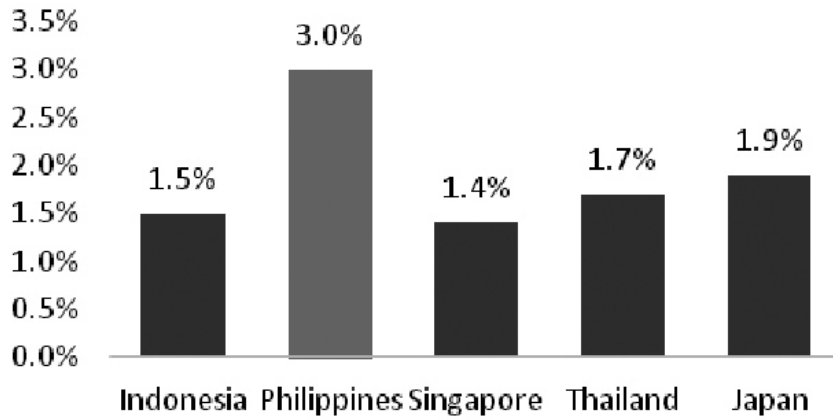


Figure 3: Ratio of Power Consumption Spending to Per Capita Household Expenditure

Source: Japan International Cooperation Agency-Institute of Energy Economics, Japan (2013)

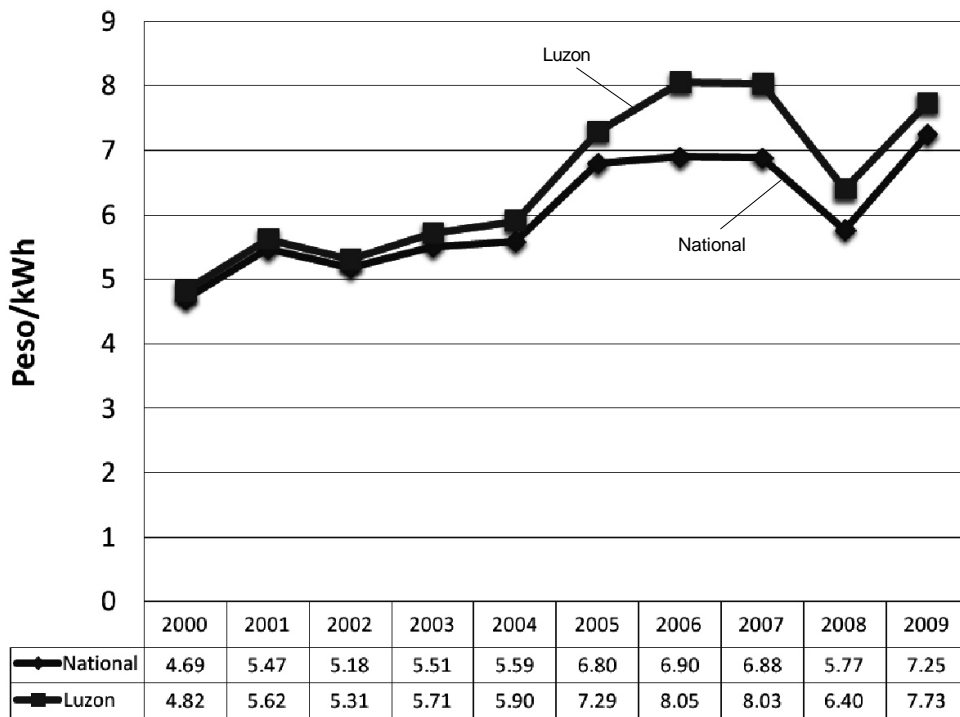


Figure 4: Power Rates in the Philippines (2000-2009)

Source: Del Mundo and Espos (2011) [2007 is an estimate]

TABLE 1. MERALCO Electricity Tariffs (Pesos/kWh)

Year	Residential	Commercial	LV Industrial	HV Industrial
2004	5.70	6.87	5.83	5.24
2011	10.25	10.81	9.70	8.37
Ave. Annual Change	8.73%	6.69%	7.54%	6.92%

Source: US Agency for International Development (2013)

TABLE 2. Average Inflation Rate (2004-2011)

Year	2004	2005	2006	2007	2008	2009	2010	2011	AVE
Inflation Rate	5.70%	7.00%	5.50%	2.80%	6.20%	4.10%	3.70%	3.60%	4.83%

Source: Data from National Statistics Coordination Board [Inflation at Year 2000=100]

Power Rates in the MERALCO Franchise

The electricity tariffs in 2004 and 2011 in the MERALCO franchise, the largest distribution utility with 63 percent market share in the total electricity sales in the country is shown in table 1. The electricity tariff has increased by 8.73 percent annually for residential customers, while tariffs for commercial and industrial customers increased annually by 7 percent. The power rates increases in the MERALCO franchise area lot higher compared to the core inflation rate of the country, which averaged at 4.83 percent in the same period, as shown in Table 2.

Factors Affecting Power Rates

Effect of Taxes

A study by the US Agency for International Development (USAID)(2013) has deduced the effect of taxation, subsidies, and purchasing power in select ASEAN countries to compare their power rates. Table 3 shows the estimate of electricity

tariffs in 2011 for residential customers (typical 200 kWh per month consumption), commercial (3,000 kWh per month), low voltage industrial (50,000 kWh per month), and high voltage industrial (200,000 kWh per month). Taxes in the Philippines have effectively increased the power rates for different types of consumers by 7.61 percent to 9.25 percent. Similarly, taxes in Singapore and Thailand taxes have also increased their power rates by 7 percent.

Malaysia has pegged its taxes at 6 percent for all customer classes. Indonesia taxes its residential customers only 2.4 percent while commercial and industrial customers are taxed at 12.5 percent. Comparing the tariffs without the government-imposed taxes, electricity prices for residential consumers in Indonesia, Malaysia,

TABLE 3. Effect of Taxes on Power Rates

Customer Class	PH	SG	IND	MAL	TH
With Tax (USD/kWh)					
Residential	0.2257	0.2207	0.0527	0.0755	0.1106
Commercial	0.2327	0.2207	0.1665	0.1442	0.1342
LV Industrial	0.1861	0.2127	0.1288	0.1268	0.1278
HV Industrial	0.1865	0.1909	0.1094	0.1145	0.1151
Pre-tax (USD/kWh)					
Residential	0.2066	0.2063	0.0514	0.0713	0.1034
Commercial	0.2133	0.2062	0.1480	0.1365	0.1254
LV Industrial	0.1729	0.1988	0.1144	0.1197	0.1195
HV Industrial	0.1714	0.1784	0.0973	0.1080	0.1075
Increase in Electricity Tariffs					
Residential	9.25%	6.98%	2.43%	5.96%	7.00%
Commercial	9.05%	7.00%	12.50%	5.64%	7.00%
LV Industrial	7.61%	7.00%	12.50%	6.00%	7.00%
HV Industrial	8.77%	7.00%	12.50%	6.00%	7.00%
Price of Electricity Relative to Philippines					
Residential	100.00%	99.85%	24.89%	34.50%	50.04%
Commercial	100.00%	96.66%	69.37%	63.98%	58.77%
LV Industrial	100.00%	114.98%	66.18%	69.20%	69.08%
HV Industrial	100.00%	104.09%	56.73%	62.98%	62.73%

Source: Data from US Agency for International Development(2013)

and Thailand are only respectively 25 percent, 35 percent, and 50 percent of their counterpart in the Philippines. This explains why households in the Philippines consume less electricity while share of electricity in their expenditures are much higher. For commercial and industrial customers, the tariffs in the three countries are only 70 percent of the tariff in Philippines. Without taxes, power rates in the Philippines and Singapore are comparable.

Effect of Subsidies

The effect of subsidies in power rates is summarized in table 4. Singapore and the Philippines have no subsidy for electricity consumers. On the other hand, the governments of Indonesia, Malaysia, and Thailand provide subsidies to electricity consumers in different forms, including subsidies in fuel and in power system infrastructures. After removing subsidies from the pre-tax tariffs, the prices in Indonesia increased from 124 percent to 168 percent, indicating that the level of subsidies ranges from 24 percent to 68 percent, with residential customers enjoying the highest level of subsidy. Malaysia's subsidies to the different types of consumers range from 7 percent to 13 percent while the Thais enjoy subsidies that range from 31 percent to 37 percent.

After removing taxes and subsidies, electricity tariffs in the Philippines remain higher compared to those of other ASEAN countries. Tariffs in Indonesia are only 42 percent to 86 percent of those in the Philippines. Malaysia's tariffs are only 39 percent to 75 percent, while Thailand's are only 69 percent to 91 percent of the tariffs in the Philippines.

The comparison of electricity tariffs in 2011 in Indonesia and the Philippines is validated by an independent study of Japan International Cooperation Agency-Institute of Energy Economics, Japan (JICA-IEEJ) in 2013, as shown figure 5. The Philippines' rate of 20 US cents per kWh is significantly higher than Indonesia's 14 US cents per kWh after the removal of subsidies.

TABLE 4. Effect of Subsidies on Power Rates

Customer Class	PH	SG	IND	MAL	TH
Pre-tax with Subsidies (USD/kWh)					
Residential	0.2066	0.2063	0.0514	0.0713	0.1034
Commercial	0.2133	0.2062	0.1480	0.1365	0.1254
LV Industrial	0.1729	0.1988	0.1144	0.1197	0.1195
HV Industrial	0.1714	0.1784	0.0973	0.1080	0.1075
Pre-tax after Removing Subsidies (USD/kWh)					
Residential	0.2066	0.2063	0.0866	0.0808	0.1419
Commercial	0.2133	0.2062	0.1832	0.1461	0.1639
LV Industrial	0.1729	0.1988	0.1496	0.1293	0.1580
HV Industrial	0.1714	0.1784	0.1325	0.1176	0.1461
Percent Change in Electricity Tariffs					
Residential	100.00%	100.00%	168.39%	113.40%	137.30%
Commercial	100.00%	100.00%	123.78%	107.04%	130.73%
LV Industrial	100.00%	100.00%	130.75%	108.03%	132.26%
HV Industrial	100.00%	100.00%	136.18%	108.90%	135.83%
Price of Electricity Relative to Philippines					
Residential	100.00%	99.85%	41.90%	39.12%	68.70%
Commercial	100.00%	96.66%	85.87%	68.48%	76.83%
LV Industrial	100.00%	114.98%	86.53%	74.75%	91.36%
HV Industrial	100.00%	104.09%	77.26%	68.59%	85.21%

Source: Data from US Agency for International Development (2013)

Effect of Fuel

It can be concluded that the power rates in the Philippines are significantly higher than in Indonesia, Malaysia, and Thailand even when taxes and subsidies are removed. Singapore's power rates, which is also high and comparable to the Philippines', can be explained by the type of fuel or energy resources used in power generation, as shown in table 5. Singapore is practically dependent on expensive fossil fuel. Its power generation from natural gas and oil accounts for 96.4 percent of the total. The other

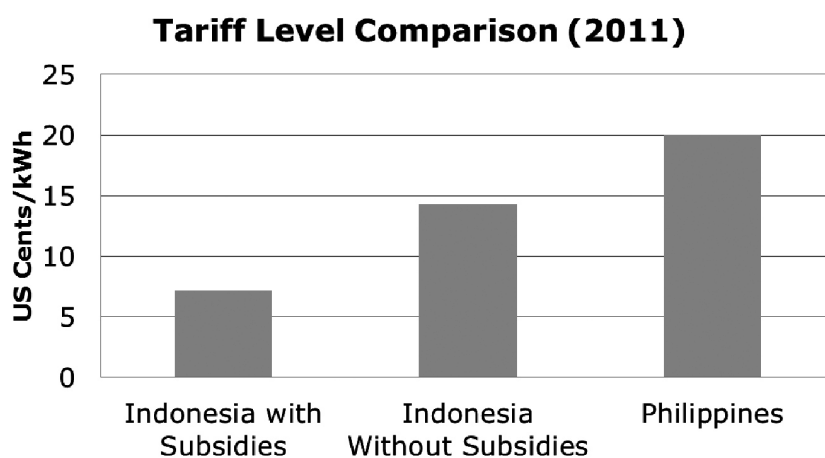


Figure 5: Tariff Level in Indonesia with and without Subsidies and the Philippines

Source: Japan International Cooperation Agency-Institute of Energy Economics, Japan (2013)

3.6 percent come from waste energy conversion systems. The Philippines, Indonesia, Thailand, and Vietnam, on the other hand, use coal to fuel their power plants (22 percent to 44 percent) and as well as hydro (5 percent to 30 percent) and other renewables which do not require fuel. Fourteen percent of other renewable energy is provided by geothermal resources. Thus the Philippines generates 70 percent of its power from cheaper sources than is done in Indonesia (60 percent), Vietnam (50 percent), and Thailand (30 percent). It is reasonable then to expect to have lower rates in the Philippines after removing taxes and subsidies. The notion that the tariffs in the Philippines are comparable to Singapore, where there are also no subsidies and a competitive electricity market exists, and therefore sustainable is a misconception.

Effect of Electricity Market

The Philippines, Singapore, and Vietnam (only recently) restructured their power industry and established competitive electricity markets while Indonesia and Thailand have maintained the Single Buyer model for their electricity markets. In the structured power industry of the Philippines, generation companies (GENCOs) compete for power supply contracts of the distribution utilities (DUs) and in the wholesale electricity spot market (WESM) which trades electricity on an hourly basis.

TABLE 5. Power Generation and Fuel Mix (2011)

Fuel Type	PH	IND	SG	TH	VIE
Total GWh	69,176	182,384	45,999	155,986	99,179
Coal	36.6%	44.4%	0.0%	22.3%	21.1%
Nat Gas	29.8%	23.2%	78.0%	68.3%	43.9%
Oil	4.9%	20.3%	18.4%	1.3%	4.8%
Hydro	14.0%	6.8%	0.0%	5.2%	30.1%
Other RE	14.7%	5.2%	3.6%	2.8%	0.1%

Source: Data from Japan International Cooperation Agency-Institute of Energy Economics, Japan (2013)

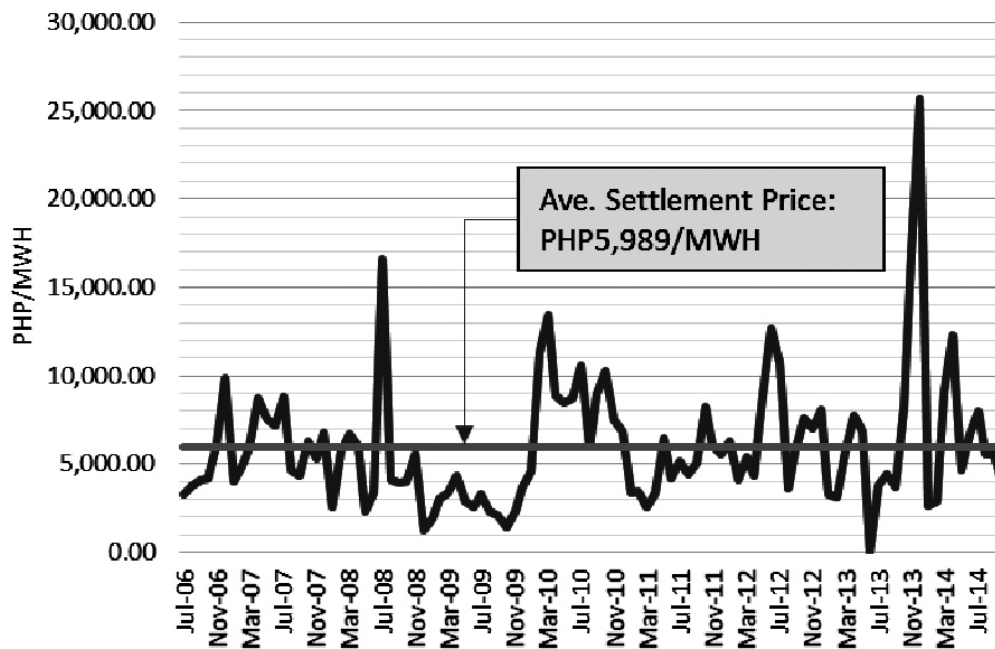


Figure 6: Price Settlement in WESM, July 2006 to July 2014 (PHP/MWH)

Source: Data from Department of Energy (2015)

The prices in Philippine WESM since its operation in 2006 is shown in figure 6. The volatile prices in the market for the period fluctuate around PHP6.00 per kWh, which is 250 percent of the National Power Corporation’s (NPC) effective selling price (PHP2.39 per kWh) just before EPIRA was enacted in 2001. In 2005, before the WESM was created, the NPC’s effective selling rates were PHP4.41 per kWh, PHP3.38 per kWh, and PHP2.53 per kWh in the Luzon, Visayas, and Mindanao grids, respectively. The NPC’s average generation rate in 2011 was PHP4.67 per kWh.

Figure 7 shows how the WESM prices behaved before and during the shutdown in 2013 of the Malampaya natural gas facility that supplies about 40 percent of MERALCO’s requirements. The settlement price during the two months of shut down averaged PHP26 per kWh.

While it is clear that the market prices settled in WESM are higher than the NPC’s generation rates allowed by the Energy Regulatory Commission (ERC) to

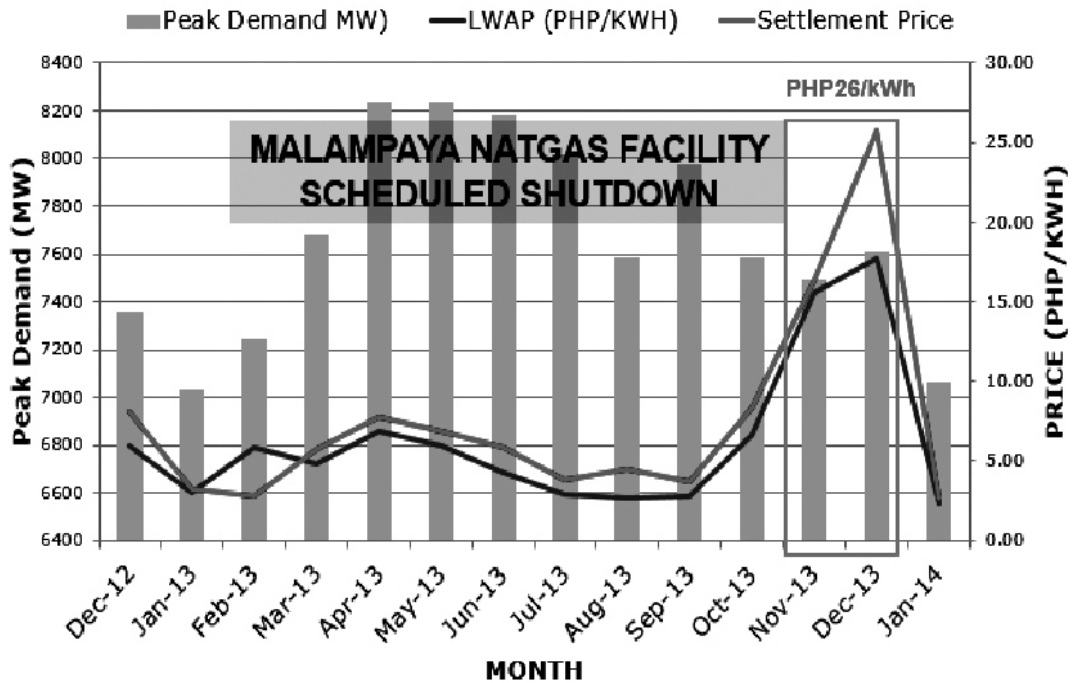


Figure 7: Price Settlement in WESM (PHP/MWH), December 2012 to January 2014

Source: Data from Wholesale Electricity Spot Market

be passed on to Distribution Utilities,¹ it must be noted that the volume traded in WESM is only about 10 percent of the demand. Thus the high electricity cost in the Philippines can be attributed not only to the spot market but also to the bilateral contracts between power generation companies and distribution utilities, which is about 90 percent of total electricity demand.

Reducing Power Rates

Reducing Taxes

The USAID study concluded that the power rates in the Philippines are comparable with those in Singapore and recommended to address the power rates issue by reducing taxes. But as pointed out in Section 4.3, the fuel mix (i.e., dependence on fossil fuel) of Singapore dictates that its prices will be naturally and significantly higher. The taxes in the Philippines are only 2 percent to 3 percent higher compared to those of most ASEAN countries. Indonesia's taxes for commercial and industrial customers (12.5 percent) are even higher than the taxes in the Philippines (9 percent). Thus, if taxes in the Philippines are reduced to the level of taxes in other ASEAN countries, only a 2 percent to 3 percent reduction in tariff rates can be achieved.

Reducing Prices in the Electricity Market

The most logical area to achieve significant reduction in power rates is the electricity market, i.e., in WESM and in the bilateral power supply contracts of DUs with GENCOs.

The WESM has volatile prices which follow the law of supply and demand. While it is important to reform the Philippine WESM in order to refine and simplify its rules to make it more transparent and competitive, the ultimate solution to stabilize market price in WESM is to ensure adequate power supply. The link between market price and security of supply cannot be decoupled, suggesting that the EPIRA reforms must prioritize the activities that will achieve supply security.

Given the small market in the Philippines, security of supply can be achieved by organizing competitive a procurement process and designing properly the power supply contracts of DUs. DUs must pursue long-term contracts (15 to 20 years) with GENCOs for their uncontracted future demand. These long-term contracts must be appropriately designed for the Philippine market structure but with lenders' perspective in order to assure project financing, hence, assuring new generating capacity in the future with certainty.

Existing power plants must be given only short-term contracts (up to 5 years) for their uncontracted capacity and after the expiration of long-term power contracts. This will compel the GENCOs to remain in competitive mode.

The combination of short-term contracts for existing power plants and long-term contracts to induce investment in new power plants will ensure supply will always be more than enough for the demand in the electricity market to realize competitive results.

Mandatory Competitive Public Bidding for Power Supply Contracts

Big opportunities to reduce power rates exist in transparent and competitive public biddings for the power supply contracts of DUs. The Philippine electricity market has a monopsony buyer in Luzon Grid since the largest distribution company's market share is about 75 percent of the total sales in the grid and at least 60 percent of the demand of the country. This company has natural economies-of-scale, having more than 5,000 MW demand that can be used to leverage the reduction of power rates through competitive tender for power supply contracts. The biggest distribution utilities in the Visayas, based in Cebu City, and Mindanao, based in Davao, have also natural economies-of-scale although relatively very much smaller than the DU in Luzon.

Incidentally, the three large DUs in the three grids have cross-ownership with generation companies (i.e., the DUs and/or their owners are also owners of generation companies). RA 9136 allows cross-ownership between generation and distribution companies provided the DUs source only up to 50 percent of their electricity requirements from their affiliates. This provision of the EPIRA law provides a legal

incentive for DUs to procure power from their affiliates through negotiated contracts avoiding competitive public bidding. So far, there is no report of an organized competitive public bidding for these companies' power supply contracts.

The EPIRA law can still achieve its objective of making rates affordable to consumers even with the cross-ownership provision (i.e., without amending the law) if the Department of Energy (DOE) and the ERC will issue and implement policies and regulation requiring (i.e., mandatory) public bidding for the power supply contract of DUs uncontracted demand. Affiliated GENCOs of DUs must join the bidding to prove that they indeed can provide the least-cost power to their DUs.

Power Supply Aggregation of Electric Cooperatives

While there exist monopsony DU in Luzon and DUs in the Visayas and Mindanao with relative market power, there are also many small distribution utilities scattered all over the country (120 electric cooperatives) whose power demand are only between 2 MW and 40 MW, with the exception of 3 ECs whose demand is approaching 100 MW. In order to achieve economies-of-scale, the ECs must be organized to aggregate their power demand and subject them to a competitive procurement process for power supply contracting. Incidentally, these electric cooperatives are non-stock, non-profit utilities owned by the consumers themselves. Since they do not have conflict of objectives, unlike the private DUs with affiliated GENCOs, they can demonstrate how to reduce power rates through competitive bidding for power supply contracts.

Three groups of electric cooperatives have organized and implemented power supply aggregation and joint procurement processes. The first is the 20 ECs in Mindanao that organized themselves as AMRECO PSAG (Association of Mindanao Rural Electric Cooperatives Power Supply Aggregation Group), tendered 300 MW of aggregated baseload demand out of their 600 MW combined demand, and signed a 20-year power supply agreement in November 2012 for a new capacity to start delivery in 2017. The second group is the 11 ECs in Central Luzon which called themselves CLECAFLAG (Central Luzon Electric Cooperatives Association–First

Luzon Aggregation Group). They also bid out 300 MW baseload power demand and signed power supply agreements in June 2013. The third group of ECs is the R1+CAR Aggregation Group from Northern Luzon (Region 1 and Cordillera Autonomous Region) which bid out an aggregated demand of 106 MW in April 30, 2015.²

The Mindanao ECs individually received offers from Mindanao-based GENCOs that ranged from PHP5.50 per kWh to PHP6.30 per kWh on “take it or leave it basis” prior to their aggregation initiatives. The group hired an international transaction advisor which was tasked to announce in other countries the competitive tender for a 300 MW demand in Mindanao to bring in serious foreign bidders that could challenge the apparent monopoly of GENCOs in Mindanao. The transaction ended up with a signed contract at PHP4.12 per kWh, which was lower than the unannounced reference or target price of PHP4.20 per kWh of PSAG based on the least-cost power supply plan prepared by the PSAG Technical Working Group (TWG) under the supervision of this author.

The success of the Mindanao ECs in their power supply aggregation inspired the ECs in Central Luzon to follow the same process (joint least-cost power supply planning and competitive public bidding).³ With the prevailing generation price in Luzon at more than PHP5.50 per kWh and MERALCO’s announced newly signed contracts at PHP4.67 per kWh (MERALCO 2012), the Central Luzon ECs set PHP3.90 per kWh as the target price for their 300 MW aggregated baseload demand. This is based on the power supply planning for ECs which estimated a best new entrant baseload power plant in Luzon Grid. To meet their target, CLECAFLAG set a price cap for their bidders at PHP4.09 per kWh as indicated in their bidding documents (lower than the PHP4.12 per kWh price obtained by the aggregation group in Mindanao). The Central Luzon ECs signed power supply agreements and risk mitigation agreements in June 2014 at PHP3.70 per kWh at 100 percent load factor. The winning GENCO will put up a 1,200 MW power plant that will start to deliver power in 2019 to the ECs in Central Luzon.

The impact of aggregation and competitive bidding for the Central Luzon ECs is illustrated in figure 8. The actual average rates of residential consumers in the coverage areas of the 11 ECs in Central Luzon (Aurora, Pampanga, Tarlac, Nueva

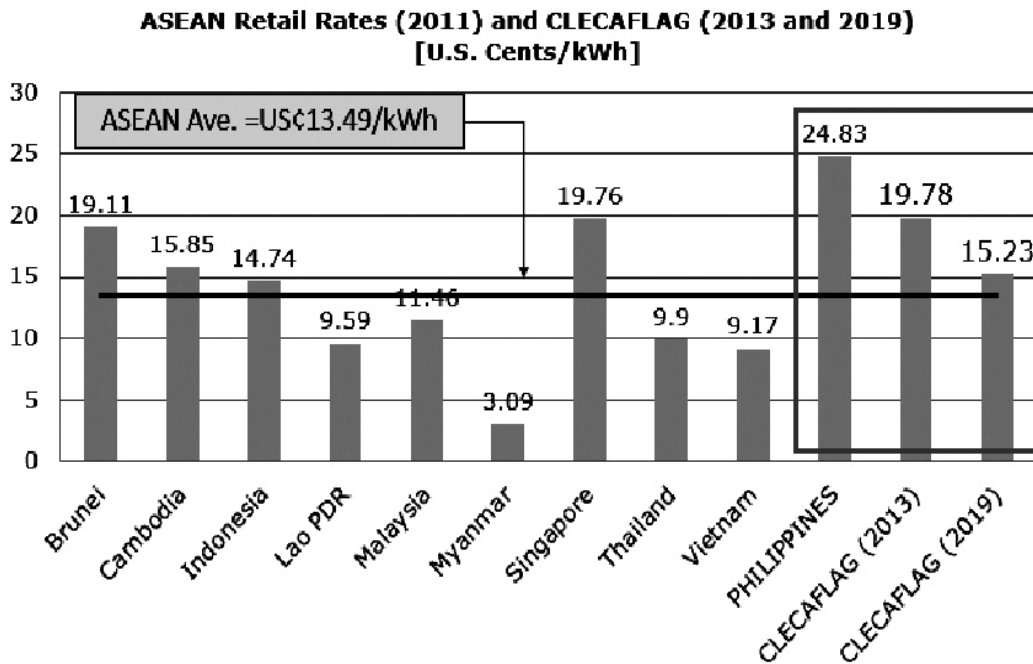


Figure 8: Rate Reduction of ECs in Central Luzon

Ecija, and Zambales) in 2013 was US cents 19.78 per kWh, which is 26 percent lower than the Philippine average in 2011 at US cents 24.83 per kWh. The estimated power rates for residential consumers, assuming a 10 percent blend from WESM, will be reduced to US cents 15.23 per kWh in 2019 when the commercial operation date (COD) of the new power plant will start to generate and deliver power. This rate reduction translates to a 30 percent reduction in generation rates and an effective 20 percent reduction in total power rates for consumers in Central Luzon.

Following the Central Luzon ECs, the Region 1 and CAR ECs launched in September 2014 their Joint Competitive Power Supply Procurement (JCPSP) for their aggregated uncontracted 106 MW baseload demand with 80 percent load factor. The bidding, which was concluded on April 30, 2015, got the lowest bid for R1+CAR ECs long-term power supply contract at PHP3.75 per kWh, which was only 2 centavos lower than the losing bidder’s offer of PHP3.77 per kWh. The winning bidder will also start supplying the ECs in 2019 for 20 years. The outcome of the bidding will reduce the generation rates of the ECs by 30 percent starting in 2019.

Ensuring Least-Cost and Security of Supply

The power supply aggregation groups of ECs demonstrate how to achieve least-cost and security of supply. The ECs prepared a least-cost power supply plan which was the basis for the volume and timing of supply to be procured, and the target price for their joint competitive power supply procurement. The competitive selection process was designed after a market assessment to meet the target price. Thus, achieving least-cost supply for ends-users of electricity as mandated by EPIRA is possible by adopting this model of doing business.

To ensure security of supply, the long-term power supply contract is awarded to the winning bidder, who is required to construct a new power plant with a lead time of four to five years. Only bidders with track records showing technical and financial capability to develop, build, operate, and maintain power plants are deemed eligible to join the tender. The transaction requires the bidders to submit in their bid the technical proposal showing proof that (a) the site for the power plant has been secured; (b) long-term fuel supply has been arranged; (c) construction contract is being arranged with an engineering, procurement and construction (EPC) contractor; and (d) investors have committed to the project and lenders have been arranged for financing. Only the bids of GENCOs that show compliance with legal requirements, have the required technical and financial capabilities, and ensure that a power plant will commercially operate on or before the commencement of the power supply contract are deemed compliant. These requirements provide certainty of new power generation capacity being added to the grid on time, thus assuring security of supply not only of the DUs but the grid as a whole.

Target Power Rate Power Reduction

RA 9136 mandated the Department of Energy (DOE) to supervise the restructuring of the Philippine electric power industry. An independent regulator (ERC) was also created to regulate utilities and oversee the competitive electricity market.

EPIRA's objectives as expressed in its Declaration of State Policy⁴ and the Philippines' standing in the ASEAN region on power rates imply that we must reduce our power rates. Reducing power rates must start with the Philippine

government setting the target reduction that should be achieved through policy and regulatory reforms (i.e., from EPIRA implementation). This target, which has yet to be set since the enactment of EPIRA, must be used as benchmark in reviewing the legislated power reforms.

From the point of view of competitiveness, the power rates in ASEAN region, which are lower by 20 percent to 30 percent compared to those in the Philippines after removal of taxes and subsidies, is a starting point. The experiences and results of the electric cooperatives power supply aggregation model also imply that generation rates can be reduced by 30 percent. If all other components of power rates, such as generation, transmission, universal charges, and taxes, are held constant, the reduction of 30 percent in generation charges will translate to about a 20 percent reduction in retail rates.

Moreover, at today's cost of investment, operation and maintenance (O&M), and fuel for power plants, the generation cost at blended rate using coal, natural gas, and diesel power plants as representative of baseload, intermediate, and peaking plants, respectively, to supply the Luzon Grid, produces a blended price estimated between PHP4.00 per kWh and PHP4.50 per kWh. This is 21 percent to 36 percent lower than MERALCO average generation rate in 2014, as shown in table 6.

TABLE 6. MERALCO 2014 Generation Rates

January	5.6673
February	5.5359
March	5.2064
April	5.8995
May	5.9703
June	5.3105
July	5.4072
August	5.6352
September	5.1937
October	5.3523
November	5.1072
December	4.9372
Average	5.4352

Source: Data from MERALCO (2014)

Conclusion and Recommendations

Power rates in the Philippines are the highest in the ASEAN region. In order for the country to be competitive, these must be reduced. Reducing taxes to the level of the region will only achieve a 2 to 3 percent reduction. The electricity market is the major factor for why power rates are high.

The aggregation of small electric cooperatives to achieve economies-of-scale and their requirement of a competitive public bidding for power supply contracts have demonstrated that a 20 percent rate reduction can be achieved through such an initiative. A similar effort in the transmission and distribution sectors may be able to contribute another 10 percent reduction in power rates. The large private DUs that have natural economies-of-scale should be able to accomplish more than what the aggregation of the ECs have achieved through a competitive public bidding for their power supply contracts.

The Philippine government must focus its efforts in reforming the electricity market to achieve a significant reduction in power rates. The issuance of a policy by the DOE and its implementation through regulation by the ERC on mandatory competitive public bidding for power supply contracts of distribution utilities is the first step. Long-term forward contracts that will ensure supply security must be designed in such a way that considers lenders' view for project financing. The existing power plants must be given only short-term contracts.

The Distribution Utilities must submit to the DOE or the ERC their least-cost power supply plan with a procurement schedule (i.e., schedule of bidding for uncontracted demand). If a DU fails to procure according to schedule, the government (either DOE or ERC) must bid the uncontracted demand of the DU.

The ERC must approve the power supply contracts in a timely manner to avoid delays in the construction of generation projects. The ERC's final approval is required by lenders for financial closing of the GENCOs power generation projects. A light-handed regulation can be applied if all of the following elements of competitive power supply procurement of DUs are present:

- a) Least-Cost Power Supply Plan (Quantities & Timing)
- b) Target Price (Best-New Entrant)

- c) Market Assessment
- d) Transaction/Bidding Design
- e) Transparent (Clear evaluation methodology)
- f) Competitive Results (against Target/Benchmark)

If the outcome of the bidding process is higher than the target or benchmark, the ERC may apply cost-based evaluation using efficient costs of similar projects (type, capacity, location) as benchmarks.

If a DU submits to the ERC a negotiated power supply contract, the ERC must subject the DU's power supply agreement (PSA) to a competitive selection process, such as the Swiss challenge used under the Build, Operate, and Transfer (BOT) law. This will ensure that the contract price is the lowest that can be achieved from the market.

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Notes

- 1 NPC's generation rate was regulated by the Energy Regulatory Commission even EPIRA has established a competitive electricity market due to NPC's control of the power supply.
- 2 The author facilitated the organization of the three power supply aggregation groups of ECs and served as lead transaction advisor for the joint competitive procurement process for the power supply of the aggregated demand of the ECs.
- 3 The Joint Competitive Power Supply Procurement process of CLECAFLAG was assisted by USAID Compete Project with the author as Lead Advisor.
- 4 EPIRA's Declaration of State Policy, includes among others, the following:
 - (b) To ensure the quality, reliability, security and affordability of the supply of electric power;
 - (c) To ensure transparent and reasonable prices of electricity in a regime of free and fair competition and full public accountability to achieve greater operational and economic efficiency and enhance the competitiveness of Philippine products in the global market;[underscore supplied]

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