UNIVERSITY OF THE PHILIPPINES
CENTER FOR INTEGRATIVE AND DEVELOPMENT STUDIES

ISSN 2619-7278 (Print)
ISSN 2619-7286 (Online)

Policy Brief
2025-18

POLITICAL ECONOMY PROGRAM

RETHINKING THE COUNTRY'S FAILED ELECTRIC POWER POLICY

Niceto S. Poblador
UP CIDS Research Fellow

INTRODUCTION

Among the major reasons for the dismal economic performance of the Philippines in recent years is the exceedingly high cost of energy in the country which stood at Php 10.15 per kilowatt-hour in 2022, second only to the highest in Southeast Asia (Power Philippines 2023). By comparison, Malaysia has the lowest price of electric power in the region at Php 1.42/kWh.

This paper examines what we believe are the major reasons for the high cost of electricity in the country, and explores alternative approaches to properly addressing this long-standing issue.

A HISTORICAL SKETCH OF THE COUNTRY'S ELECTRIC POWER POLICY[1]

The country's electric power policy has had a long and tortuous history since the National Power Corporation was established in November 1936 when then-President Manuel L. Quezon signed into law Commonwealth Act 120 which nationalized the hydroelectric industry and reserved for its exclusive use all streams, lakes, and springs in the Philippines where power may be developed (Ravago, 2018, Electricity Policy in the Philippines).

The National Power Corporation (NPC) has since undergone several changes in its structure and mandate. Among the major ones are the following:

- In 1960, it was converted into a wholly government-owned stock corporation with an initial capitalization of Php 100 million (or roughly 1.4 billion in today's time).
- Republic Act. No. 6395 was passed in September 9, 1971 and revised the charter for the NPC, decentralizing its activities and functions and assigned them into three separate regional offices.
- Presidential Decree No. 40 was issued on November 7, 1972 for the purpose of setting up island grids with central/linked-up generating facilities and cooperatives for power distribution. The NPC was entrusted with the responsibility of setting up transmission line grids and the construction of associated generating facilities in Luzon, Mindanao, and other major islands of the country. It was also authorized "to own and operate, as a single integrated system, all generating facilities supplying

1 This section draws heavily on Lorenzo R.Tañada III and Nepomuceno Malaluan, *EPIRA at 10: Failed Assumptions and Unfulfilled Promises* (Diliman, Quezon City: Focus on the Global South, 2011), https://www.focusonpoverty.org/download/reports/EPIRA%20at%2010%20- %20Failed%20Assumptions%20and%20Unfulfilled%20Promises%20(DRTS).pdf

electric power to the entire area embraced by any grid set up by the NPC." Negotiations were made with the Manila Electric Company (Meralco) for the sale and turnover of generating units to the government at terms and conditions acceptable to all parties. Negotiations concluded with the signing of a contract between the government and Meralco for the purchase of the latter's power- generating units at a total cost of ₱1,100 million.

- On October 6, 1977, the NPC was attached to the newly created Department of Energy (DOE) for purposes of policy coordination and integration with sectoral programs.

- The most significant achievement of the NPC in 1988 was the signing of a memorandum of agreement with the National Electrification Administration (NEA) for the takeover by the NPC of the generation facilities of electrical cooperatives in the remote islands of the archipelago. President Aquino's directive pegged electricity rates nationwide at Php 2.50/kWh and impelled the NPC to take over the electricity production activities of cooperatives in small islands and isolated areas. As of April 1991, the NPC has taken over the generation facilities and technical operation of various electric cooperatives in 26 remote islands of the archipelago.

- Fully supportive of the government's policy of encouraging private sector investments, the NPC finalized an arrangement in 1989 for private investors to participate in electric power generation through schemes such as co-generation, Build Operate Transfer (BOT), and Build Own Operate (BOO). Proposals from various BOT and BOO proponents were entertained in 1988 and in the early part of 1989. This culminated in the signing of a BOT agreement between the NPC and the Hopewell Energy Management Limited of Hong Kong for the installation of two 110-megawatt turbine plants in Luzon. The NPC's goal was to achieve total electrification before the 21st century. For such an ambitious plan, the NPC envisioned the interconnection of all-independent grids in Luzon, Visayas and Mindanao through the advanced system of overhead lines and submarine cables. In 1990, the Negros-Panay interconnection project was put into operation. The 18.3-kilometer (11.4 mi) submarine cables interconnecting the two islands enable the NPC to utilize the excess steam from the Palimpinon Geothermal power plant in Negros. The project is part of the master plan to develop an electric superhighway for the entire country. The major component of this project is the interconnection of the Luzon grid to Leyte where the large steam field of Tongonan is located.

In the same year, the National Power Corporation installed and commissioned 11 gas turbine units throughout the country to meet the urgent power supply deficiencies caused by an extended dry spell. Additionally, the state-owned power firm installed 768 diesel generator sets (with a total capacity of 19.7 KW) to serve consumers in isolated islands, in line with NPC's mission to bring the benefits of electricity to the farthest corners of the country.

NATIONAL POWER UNDER THE EPIRA

The electric power industry underwent a significant transformation with the promulgation of The Electric Power Industry Reform Act (EPIRA) in March 2001. The EPIRA required the government-owned National Power Corporation to privatize its generation and transmission assets.[2]

It passed into law in June 2001 for the avowed purpose of unbundling, or breaking up the government-owned National Power Corporation's power generation and transmission assets and to promote competition in order enhance efficiency and reduce prices.

2 There were, however two notable exceptions:

1. Through its Small Power Utilities Group (NPC-SPUG), National Power continues to pursue its mandate to provide electricity in off-grid areas, particularly in areas where private investors hesitate to come in due to lack of infrastructure and political and security concerns. For example, in 2008, National Power installed a 500 kW diesel power plant in the remote island of Cuyo, Palawan (500 kW) and another one in Siasi, Sulu.

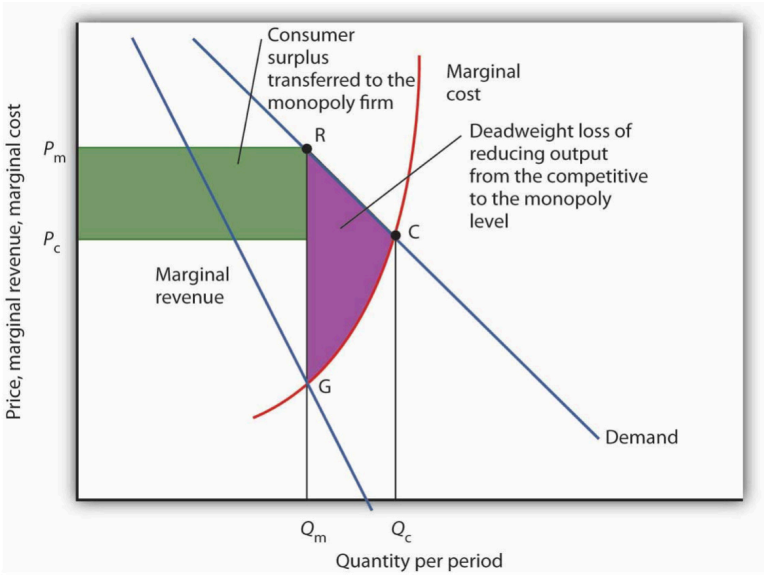
2. National Power continues to fulfill its mandate to manage the 11 watersheds and 22 dams under its stewardship. From 2008 up to 2012, NPC was able to rehabilitate a total of 2,608 hectares in its watershed areas, mainly through reforestation and agro-forestry initiatives. It continues to play a role in supporting the government's drive towards climate change mitigation. At the same time, NPC continuously updates its dam safety protocols and flood control programs in keeping with international best practices.

The privatization was to be accomplished through the Power Sector Assets and Liabilities Management Corporation (PSALM). The EPIRA was left with the transition role, while the planning and regulatory functions were assigned to the DOE and the Energy Regulatory Commission (ERC) (Tanada III, et al. 2011).

The theoretical rational for Vertical Dis-integration, or "Unbundling"

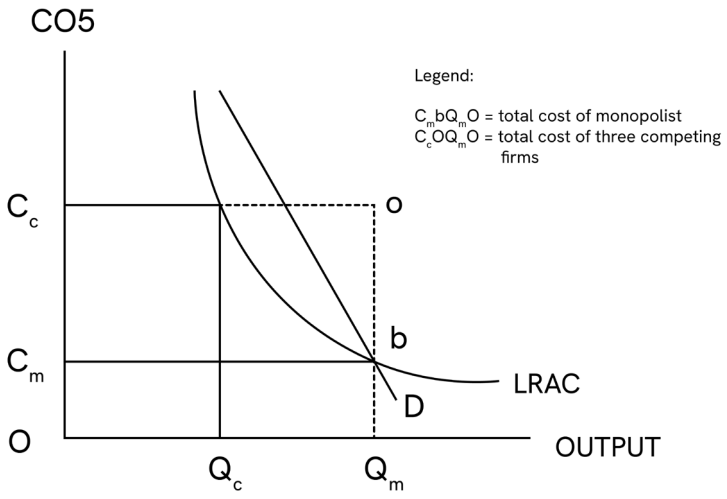
A major economic rationale that underpins the EPIRA is the traditional antitrust policy of eliminating deadweight loss by promoting competition in order to establish the price and output of electric power at their socially optimal levels. In the diagram shown in Figure 1, this condition is achieved at output Q_c where quantity supplied is equal to quantity demanded.

Under monopoly, by contrast, the firm sets its output at a much lower level Qm where its marginal revenue is equal to its marginal cost (Adonis 2023). This results in consumer surplus being transferred to the firm (given by the green area) and a loss in social wellbeing, or deadweight loss, given by the area shaded in purple.



■ **Figure 1.** The theoretical rational for Vertical Dis-integration

In industries characterized by increasing returns—such as electric power generation, transmission, and distribution—a different theoretical argument applies. Here, a single, integrated business firm can produce and offer to sell a product or service at a lower cost than its competitors can. Under these conditions, monopoly is preferred to pure competition.



■ **Figure 2.** Optimal output under Increasing Returns

The case for natural monopoly is illustrated in Figure 2. In the diagram, a single firm enjoying increasing returns to scale can produce OQm units of output at an average cost of OCm per unit of output, for total cost of CmbQmO. By comparison, each of the three competing firms can produce OQc (= (1/3)OQm units of output) at an average cost of OCc, and the three competing firms together can produce the combined output of OQm units at a total cost of OCcaQm. A close inspection of the diagram shows that the total cost incurred by the three competing firms is three times as great as the total cost of the monopolist. This demonstrates that industries characterized by increasing returns should be served by a single monopolist rather than by several competing firms.

Flawed Assumptions

For a number of reasons, the EPIRA's goal of promoting competition was not achieved, and instead, the power industry degenerated into (a) the existence of multiple monopolies at the local level where distributors monopolize their respective assigned areas; (b) collusion among power generating firms in setting prices artificially high, for example, by deliberately scheduling their annual maintenance shutdowns to reduce supply; and (c) oligopoly at the national level in power generation with emergence of three dominant players, the Lopez Group (Meralco), San Miguel Power Corporation, and the Aboitiz Group (Ravago, et al. 2018, The Public Economics of Electricity Policy with Philippine Applications).

Meralco has since been acquired by the Manny V. Pangilinan (MVP) Group, and MVP remains to be the company's Chairman and Chief Executive officer. The First Pacific Group and Metro Pacific Investment Corporation, both headed by MVP, currently hold 45.46 percent of MERALCO shares.

All told, the EPIRA's hoped-for reduction in energy prices from the implementation did not materialize. The first signs of market failure came with the grossly missed privatization targets. Legal impediments such as the need for creditor consent and the lack of investor interest plus their unmet demand for contractual market guarantees have combined to seriously delay the sale of assets. The sale of the bigger plants started to come on stream only in the latter part of 2006.

There have been a number of factors that contributed to the high cost of electric power in the country (Ravago 2022, Nature and Causes of High Philippine Electric Price). Among them are the following:

- **Ineffectiveness of PSALM in managing NPC's assets and liabilities.**

  At the time the EPIRA was enacted, total financial obligations of the NPC stood at USD 16.39 billion. After selling 91.73 percent of NPC/PSALM assets for USD 10.65 billion, total financial obligations of PSALM still stood at USD 15.82 billion as of December 2010. In other words, the EPIRA's only achievement in 10 years was facilitating the privatization of assets, while the liabilities have remained with PSALM at almost the same levels as when it started (Tañada III, et al. 2011).

  The PSALM financial hemorrhage was not about to stop, however. The conversion of the NPC's past long-term debts into shorter term commercial loans and bonds meant higher carrying costs than that of the original debt profile of the NPC. With assets depleted and projected receivables generally falling below maturing obligations on a yearly basis, PSALM became stuck with continued refinancing and ever-ballooning liabilities. Additionally, PSALM has continued to pay excessive amounts in professional fees to legal advisors/ consultants or contractors, and in incentives to employees regardless of status or performance.

- **Ineffective regulation and control of the industry.**

  At the time the EPIRA was enacted, total financial obligations of the NPC stood at USD 16.39 billion. After selling 91.73 percent of NPC/PSALM assets for USD 10.65 billion, total financial obligations of PSALM still stood at USD 15.82 billion as of December 2010. In other words, the EPIRA's only achievement in 10 years was facilitating the privatization of assets, while the liabilities have remained with PSALM at almost the same levels as when it started (Tañada III, et al. 2011).

  Another price-related concern has to do with the emerging ownership structure of the industry. It has become a field dominated by a few big players, where anti-competitive behavior such as exclusive dealing, dividing territories, and price gouging have led to higher energy prices for consumers.

Through the years, San Miguel Energy Corporation has emerged as the biggest player in power generation, at one time owning 22 percent of generating capacity. The Lopez group owned 18 percent, and Aboitiz with 14 percent. Yet, in its status reports on the EPIRA implementation, the ERC finds that no generation company violated the market share limitations per grid and national grid for the year 2010. However, no data is presented on cross-ownership and bilateral contracting where the EPIRA also imposes certain limitations.

In the absence of hard and fast data, we can deduce the prevalence of regulatory capture in the industry on the basis of strong circumstantial evidence. By all outward indications, there has been collusion between key industry players and government regulators who chose to look the other way in the face of rampant violations of government rules and regulations.

CONCLUSION AND POLICY RECOMMENDATIONS

There is an obvious need to evaluate the performance of the ERC in discharging its regulatory functions. The political appointments in the commission have compromised its independence. The ERC has become a tool for the Executive and Legislative branches of government to postpone unpopular price increases to the detriment of the economic wellbeing of consumers and at the expense of the worsening financial conditions of PSALM. The ERC's mandate should be upgraded to enable it to adequately monitor the ongoing concentration in the electric power industry.

In hindsight, it was a big mistake for the EPIRA to completely remove government's role in power generation. Even as we allow private provision of electricity, reintroducing government in the generation sector will provide the much-needed mechanism to address market failures in putting up adequate new capacity and to counter-balance any anti- competitive behavior of the big private players.

We therefore urge the reversal of the existing policy of breaking up the electric power industry into its basic components and to re-cluster the industry by vertically integrating power generation, transmission and distribution into a single corporate entity.

There are several advantages associated with incorporating power generation, transmission, and distribution of electricity into a single integrated productive operation. The following are the major ones:

- **Economies of scale**

  Vertically integrating the different facets and stages of production into a single enterprise allows the firm to aggregate common functions such as training, recruitment and manpower development, information management, financial sourcing, and purchasing. This allows tasks to be placed under one administrative roof. Consolidation of functions enable the organization to benefit from greater efficiency and cost effectiveness resulting from economies of scale.

- **Economies of Agglomeration**

  Vertical integration also facilitates better coordination, control, and application of firm-specific routines, all of which result in improved efficiency and cost effectiveness.

- **Minimization of transaction costs**

  Incorporating the different facets and stages of production into a single enterprise eliminates transaction costs among separate corporate entities, including legal and administrative expenses, transfer prices, and costs arising from hold up, or the failure of suppliers to fulfil their contractual obligations to provide outsourced material or equipment in the agreed specifications or time of delivery.

DIGRESSION

Having made our case for the vertical re-integration of the electric power industry, we must hasten to add an important caveat:

While we strongly believe that the regulatory power of the ERC should be enhanced by giving it more teeth in enforcing existing regulatory measures to prevent abusive monopolistic behavior, we also see the need for strong and effective judicial and legislative oversight over the ERC to prevent its capture by existing big industry players.

REFERENCES

Adonis, Meg J. 2023. "ERC sets price caps on renewable energy sources." Inquirer, 17 June 2023. https://business.inquirer.net/405825/erc-sets-price-caps-on-renewable-energy-sources

Ateneo de Manila University. 2020. "Optimal energy policy series webinar tackles optimal energy mix." Ateneo de Manila University, 12 October 2020. https://www.ateneo.edu/news/2020/10/12/energy-policy-series-webinar-tackles-optimal-energy-mix

Brucal, Arlan Z.I. and Jenica A. Ancheta. 2018. "Assessment of the Philippine Electric Power Reform Act." Discussion Paper. Philippine Institute for Development Studies. https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps1821.pdf

Del Mundo, Rowaldo. 2015. "Understanding and Reducing Power Rates in the Philippines." UP CIDS, 2015. https://cids.up.edu.ph/wp-content/uploads/2022/03/Reducing-Power-Rates-in-PH-16Apr2015.pdf

Department of Energy (DOE). 2023. Philippine Energy Plan 2023-2050. Department of Energy (DOE). 2023. https://legacy.doe.gov.ph/pep/philippine-energy-plan-2023-2050-

Gutjahr, Walter J. and Pamela C. Nolz. 2016. "Multicriteria optimization in humanitarian aid." *European Journal of Operational Research* 25 (2): 351-366. https://www.sciencedirect.com/science/article/abs/pii/S0377221715011741

Joskow, Paul L. 2006. "Regulation of Natural Monopolies." Massachusetts Institute of Technology, 29 August 2006. https://economics.mit.edu/sites/default/files/2022-09/Regulation%20of%20Natural%20Monopolies.pdf

Lagac, Joyce Marie P. and Josef T. Yap. 2020. "Managing the Energy Trilemma using Optimal Portfolio Theory." Working Paper. Ateneo de Manila University. https://asepcells.ph/wp-content/uploads/2020/10/SSRN-id3692132.pdf

Patalinghug, Epictetus and Gilberto M. Llanato. 2004. "Competitive policy and regulation in power and telecommunications." Discussion Paper. Philippine Institute for Development Studies. https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/ris-old-backups/dps/pidsdps0518.pdf

Philergy. 2024. "Pros and Cons of Solar Energy in the Philippines." Philergy, 18 November 2024. https://www.philergy.com/post/pros-and-cons-of-solar-energy-in-the-philippines

Poblador, Niceto S. 2022. *Strategy in the New Age of Capitalism: Collaborative and Inclusive Approaches to Value Creation*. Diliman, Quezon City: U.P. Press.

Power Philippines. 2023. "DOE to release new energy roadmap this year." Power Philippines News, 21 February 2023. https://powerphilippines.com/doe-to-release-new-energy-roadmap-this-year/

Power Philippines. 2023. "PH power prices among highest in ASEAN, next to Singapore." Power Philippines News, 19 September 2023. https://powerphilippines.com/ph-power-prices-among-highest-in-asean-next-to-%20%20%20%20singapore/.

Ravago, Majah-Leah V. 2022. "The Nature and Causes of High Philippine Electricity Price and Potential Remedies." Working Paper. Ateneo Center for Economic Research and Development. https://www.ateneo.edu/sites/default/files/2023-01/AdMU%20WP%202023-01_0.pdf

Ravago, Majah-Leah V., James A. Roumasset, and Rolando A. Danao, eds. 2018. *Powering the Philippine Economy: Electricity Economics and Policy*. Diliman, Quezon City: U.P. Press.

———. 2018. "Electricity policy in the Philippines: Overview and Synthesis." In *Powering the Philippine Economy: Electricity Economics and Policy*, Diliman, Quezon City: U.P. Press.

———. 2018. "The Public Economics of Electricity Policy with Philippine Applications." In *Powering the Philippine Economy: Electricity Economics and Policy*, 42-87. Diliman, Quezon City: U.P. Press.

Ritchie, Hannah. 2024. "Solar panel prices have fallen by around 20% every time global capacity doubled." Our World in Data, 13 June 2024. https://ourworldindata.org/data-insights/solar-panel-prices-have-fallen-by-around-20-every-time-global-capacity-doubled

Tañada III, Lorenzo R. and Nepomuceno Malaluan. 2011. *EPIRA at 10: Failed Assumptions and Unfulfilled Promises*. Diliman, Quezon City: Focus on the Global South. https://www.focusonpoverty.org/download/reports/EPIRA%20at%2010%20-%20Failed%20Assumptions%20and%20Unfulfilled%20Promises%20(DRTS).pdf

UP Center for Integrative and Development Studies. 2023. "Debating the Prospects of Nuclear Energy in the Philippines." Proceedings. Quezon City: University of the Philippines Center for Integrative and Development Studies. https://cids.up.edu.ph/wp-content/uploads/2023/02/Debating-Nuclear-Prospects-Final.pdf

THE UP CIDS POLICY BRIEF SERIES

The UP CIDS Policy Brief Series features short reports, analyses, and commentaries on issues of national significance and aims to provide researchbased inputs for public policy.

Policy briefs contain findings on issues that are aligned with the core agenda of the research programs under the University of the Philippines Center for Integrative and Development Studies (UP CIDS).

CENTER FOR INTEGRATIVE AND DEVELOPMENT STUDIES

Established in 1985 by University of the Philippines (UP) President Edgardo J. Angara, the UP Center for Integrative and Development Studies (UP CIDS) is the policy research unit of the University that connects disciplines and scholars across the several units of the UP System. It is mandated to encourage collaborative and rigorous research addressing issues of national significance by supporting scholars and securing funding, enabling them to produce outputs and recommendations for public policy.

The UP CIDS currently has twelve research programs that are clustered under the areas of education and capacity building, development, and social, political, and cultural studies. It publishes policy briefs, monographs, webinar/conference/forum proceedings, and the Philippine Journal for Public Policy, all of which can be downloaded free from the UP CIDS website.

THE PROGRAM

The **Political Economy Program (PEP)** seeks to advance innovation-driven and equitable development through the conduct of problem-solving research on development policies and practice; the promotion of collaboration among the academe, government, industry, and other stakeholders in pursuit of inclusive technology and sustainable industrial policy; and the popularization of the political economy framework in the national conversations on policy options.

EDITORIAL BOARD

PROGRAM EDITORS

EDITORIAL STAFF

Get your policy papers published. Download open-access articles.

The *Philippine Journal of Public Policy: Interdisciplinary Development Perspectives* (PJPP), the annual peer-reviewed journal of the UP Center for Integrative and Development Studies (UP CIDS), welcomes submissions in the form of full-length policy-oriented manuscripts, book reviews, essays, and commentaries. The PJPP provides a multidisciplinary forum for examining contemporary social, cultural, economic, and political issues in the Philippines and elsewh ere. Submissions are welcome year-around.

For more information, visit cids.up.edu.ph. All issues/articles of the PJPP can be downloaded for free.

Get news and the latest publications.

Join our mailing list: bit.ly/signup_cids to get our publications delivered straight to your inbox! Also, you'll receive news of upcoming webinars and other updates.

We need your feedback.

Have our publications been useful? Tell us what you think: bit.ly/dearcids.

UNIVERSITY OF THE PHILIPPINES
CENTER FOR INTEGRATIVE AND DEVELOPMENT STUDIES
Lower Ground Floor, Ang Bahay ng Alumni, Magsaysay Avenue
University of the Philippines Diliman, Quezon City 1101

cids.up.edu.ph

Telephone (02) 8981-8500 loc. 4266 to 4268
(02) 8426-0955

Email cids@up.edu.ph
cidspublications@up.edu.ph

Website cids.up.edu.ph