

■ POLITICAL ECONOMY PROGRAM

ROLE OF THE STATE IN MANAGING THE ELECTRICITY SECTOR

Case of the Philippines vis-à-vis Singapore and Malaysia

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TRADITIONAL ROLE OF THE STATE

It is difficult to imagine modern society surviving and progressing toward higher and higher levels without electricity. Electricity fuels the growth of industry, commerce, agriculture, and the various sectors and sub-sectors of the economy. The absence of electricity consigns poor households and communities to economic backwardness and poverty. Shortfalls in electricity supply disrupt economic activities, including the delivery of vital services such as health, education, and so on. Without electricity, some countries in the developing world would not have achieved rapid industrial growth. For example, Vietnam, with 50 percent electrification in 1995, reached 93 percent electrification in 2004 (ADB 2015) and has become the newest Asian industrial tiger today.

Clearly, the electricity sector is central in a country's economic, social, and cultural wellbeing. Hence, the challenge to every government is to handle well the twin tasks of developing and managing the electricity sector for the whole country. In the past, these twin tasks were often lodged in one government ministry or one government corporation, which did the overall planning and implementation of electricity development, from generation to transmission, distribution, and retailing to households and various sectors of the economy. Any participation from private companies were often limited

to secondary or supportive roles such as the supply or procurement of needed materials, e.g., wires and electric posts, or in the extraction and transport of fuel such as coal and gas.

WORLD BANK SPEARHEADED “NEW” MODEL OF ELECTRICITY SECTOR DEVELOPMENT IN THE 1990s

In the 1990s, the “Washington Consensus” model of economic development, which grew out of the “privatization” mania unleashed by Ronald Reagan and Margaret Thatcher in the 1980s, became the guide of multilaterals such as the World Bank and the Asian Development Bank (ADB) in their lending relationship with the developing world. The focus of the Washington Consensus was the privatization or downsizing of government role as a competitor in the market, the opening up of national markets to global competition (e.g., tariff reductions and lifting of trade restrictions), and the deregulation of different economic sectors in the national home markets (e.g., financial sector liberalization and deregulation in agriculture).

From the Washington Consensus, the World Bank developed a new framework for power sector development

that shuns the traditional statist or government-led energy governance. The new framework calls for “market reforms” to address adequacy, affordability, and sustainability of electricity production and consumption. A comprehensive 2020 World Bank study of Foster and Rana (2020) neatly outlined these “reforms” as follows:

“The 1990s power sector reform model comprised a package of four structural reforms:

- Regulation (through the creation of an autonomous regulatory entity)
- Restructuring (entailing corporatization and full vertical and horizontal unbundling of the utility)
- Private sector participation (particularly in generation and distribution)
- Competition (ultimately in the form of a wholesale power market).”

In brief, the new framework envisioned the direct and stronger participation of the private sector in the overall development of the electricity sector. This assumes that private companies are non-bureaucratic, competitive, and cost-conscious. Hence, they help drive up productivity and improve the performance of the power sector. On the other hand, the establishment of “autonomous” regulatory bodies safeguard against private management market abuses as well as interference by outside political forces. With the flourishing of “competitive” and private-led markets, electricity prices either lower or stabilize at an affordable level while state subsidies decline. In the meantime, the profit motive encourages more private entities to invest in the power sector. Thus, through the above model, the supply of electricity shall become adequate, affordable, and sustainable for all.

THE WASHINGTON CONSENSUS POWER REFORM MODEL: A GLOBAL REVIEW BY THE WORLD BANK IN 2020

As pointed out, the World Bank’s power reform model was developed in the 1990s. Has the world, the developing countries in particular, embraced the model? What is the score three decades after?

Interestingly, the World Bank itself came up with a study to answer these questions. A 2020 report titled “Rethinking Power Sector Reform in the Developing World,” pointed out that only a handful of developing countries have adopted the World Bank model, and in those that accepted the model, “reforms were adopted rather selectively, resulting in a hybrid model, in which elements of market orientation coexist with continued state dominance of the sector” (Foster and Rana 2020).

Further, Foster and Rana explain:

“A nuanced picture emerges. Although regulation has been widely adopted, practice often falls well short of theory, and cost recovery remains an elusive goal. The private sector has financed a substantial expansion of generation capacity; yet, its contribution to power distribution has been much more limited, with efficiency levels that can sometimes be matched by well-governed public utilities. Restructuring and liberalization have been beneficial in a handful of larger middle-income nations but have proved too complex for most countries to implement.” (emphasis mine)

The authors then came up with the following conclusions and recommendations:

- “First, reform efforts need to be shaped by the political and economic context of the country. The 1990s reform model was most successful in countries that had reached certain minimum conditions of power sector development and offered a supportive political environment.
- “Second, countries found alternative institutional pathways to achieving good power sector outcomes, making a case for greater pluralism. Among the top performers, some pursued the full set of market-oriented reforms, while others retained a more important role for the state.
- “Third, reform efforts should be driven and tailored to desired policy outcomes and less preoccupied with following a predetermined process, particularly since the twenty-first-century agenda has added decarbonization and universal access to power sector outcomes.”

ELECTRICITY MARKETIZATION IN THE PHILIPPINES, SINGAPORE AND MALAYSIA

Has the ASEAN region embraced electricity marketization?

Note that, since the early 1990s, the Association of Southeast Asian Nations (ASEAN) has been discussing the possibility of setting up a region-wide “ASEAN grid” meant to foster or strengthen regional economic integration (Aris and Jørgensen 2020). Publicly, most of the ASEAN member countries have also expressed commitment to the liberalization of their respective electricity sectors.

For an initial study of the marketization program in the ASEAN, below is a brief comparative overview of electricity marketization in the Philippines and two select ASEAN countries: Singapore and Malaysia.

Philippines – most comprehensive marketization of the electricity sector¹

The Philippines holds the distinction of being the leader in the marketization of the electricity sector in the ASEAN and in the Asia-Pacific. In 2001, the Philippines, with the advice and guidance of the ADB, enacted the Electric Power Industry Reform Act (EPIRA) or Republic Act No. 9136. Prior to the EPIRA, the government tapped the services of 40 “independent power producers” or IPPs to help generate electricity and prevent a looming power crisis in the 1990s. With the EPIRA, most of the IPPs became formal participants in the electricity sector as it “unbundled” the triad functions of the sector – generation, transmission, and distribution, including retailing of electricity. The EPIRA also privatized (to be exact, sold off) the assets of the National Power Corporation (NPC), with the help of an agency called PSALM. As a result, the NPC became a hollow government agency, tasked with performing “missionary” work, such as managing the Small Power Utilities Group (SPUG), which provide electricity in off-grid areas.

In support of the marketization of the sector, the Energy Regulatory Commission (ERC) was set up as a quasi-

judicial body to promote competition among the power players (primarily the generation companies or “GenCos” and the distribution utilities or “DUs”) and prevent abuse by these players. The EPIRA also mandated the Department of Energy (DOE) to complete the marketization process by helping set up the Wholesale Electricity Spot Market (WESM). With the transmission of electricity, the EPIRA transferred transmission assets to TRANSCO. However, the job of managing and operating transmission was given to a private concessionaire. In 2008, the National Grid Corporation (NGCP), in a joint venture with the China Grid Corporation, won the contract to be the concessionaire.

By 2010, the electricity sector of the Philippines stood out in the region as the most open to the private sector, with the responsibility of the DOE limited to providing general policy directions in the development of the power sector and the ERC, in addressing electricity pricing disputes involving the GenCos and DUs.

Singapore – progressive liberalization²

Singapore is considered second to the Philippines in relation to the openness of the electricity sector to private players. However, Singapore pursued marketization in a progressive manner, unlike the Philippines which did it in virtually one fell swoop through the EPIRA. First, the Public Utilities Board (PUB)—then in charge of managing the supply of water, electricity, and gas—was corporatized in 1995. Electricity management was placed under the control of Singapore Power, which had become a subsidiary of Temasek Holdings, a government-owned investment company. Singapore Power organized several GenCos, all government-owned, under its wing.

From 1998 to 2001, a regulatory framework on how to manage the development of the electricity market was put in place. A powerful Energy Management Authority (EMA) was established under the Department of Trade and Industry to oversee progress and development in the different segments of the electricity sector, meaning the whole value chain involved in the generation, transmission, and distribution of electricity. In short, EMA provides overall coordination over the work of the different segments. It exercises control through the issuance of

¹ There are numerous publications on the history of EPIRA. The latest is the study of Maitet Diokno’s “EPIRA’s Fake Promise of Cheaper Electricity,” in *Saan Umabot ang Bente Mo: EPIRA 20 Years After*, (Manila: Friedrich Ebert Stiftung, 2024).

² Based on the following studies: 1) Ali et. al. (2022) and Aris and Zawawi (2020).

licenses and enforcement of state-dictated regulations. EMA's work is facilitated with the help of the Power Supply Operator (PSO).

From 2001 to 2009, Singapore Power divested itself of generation work by selling the GenCos under it. At the same time, the EMA recognized or licensed the operations of new GenCos. From 2009 onwards, Singapore's focus shifted to the operationalization of the Singapore Wholesale Electricity Market (SWEM) and the liberalization of the retailing segment of the market, which means the retailing of electricity to households and the so-called "contestable" components of the market.

The SWEM is similar to the WESM of the Philippines. However, it was developed under the strict monitoring and supervision by the EMA. GenCos producing at least 1MW are required to register to insure that SWEM is able to cover most of the electricity being traded within the city state.

Malaysia – hesitant liberalizer

Malaysia has been declaring its commitment to marketization of opening up of the sector to greater private sector participation (Aris, Shah, and Zawawi 2020). However, the sector is mostly dominated by three "government-linked" corporations (GLCs): Tenaga Nasional Berhad (TNB), which serves the West Malaysia or peninsular Malaysia, Sabah Electricity Sdn Bhd (SESB), and Sarawak Electricity Supply Corporation (SESCO). All three were products of the corporatization process in the 1990s. Their establishment was meant to relieve the National Electricity Board under the Ministry of Energy, Telecommunications, and Post of managing of the electricity sector. All three GLCs are engaged in the generation, transmission, and distribution of electricity in their respective geographical areas.

The generation work is complemented by the contributions of a score of IPPs, a number of which were set up in the 1990s in response to a similar power crisis to the Philippines. Like the Philippines, they were compensated for any changes in the fuel prices, while much of their fixed costs investment were protected against market risks through the use of take-or-pay contracts or capacity charges. They also enjoyed subsidized supply of energy.

Since the GLCs have maintained their own GenCos, there were studies showing that some of the private-sector-led

GenCos were less efficient compared to the government GenCos under the GLCs. Nonetheless, the Malaysian government, under different administrations, argued that allowing private Gencos/IPPs to operate helps enhance competition and improves sector efficiency.

At the same time, there are studies purporting to show the decline in the overall efficiency of the three GLCs. Hence, there have been proposals to subject them to marketization and open them up to greater private sector participation in the generation, transmission, distribution, and retailing of electricity. So far, the Malaysian government and the three GLCs have been unable to act forcefully on these proposals.

Lessons for the Philippines in the marketization process

From the foregoing summary of the World Bank assessment of the marketization model it developed in the 1990s and the outline of how Singapore and Malaysia, one can draw up some lessons on why the marketization program of the Philippines remains "bumpy" or controversy-laden.

First, the EPIRA marketization was imposed in one fell swoop without due regard to the social and economic circumstances in the country. Singapore, with the distinction of having the second most liberalized sector, in the ASEAN, pursued marketization in a progressive manner, paving the way for the smoother acceptance by the public of market reforms.

Second, the Philippines' regulatory framework for the sector was concentrated on the settling of price disputes involving the GenCos and DUs. In Singapore, the regulatory framework was developed ahead of the fuller marketization of the sector. The framework covers the whole value-chain of electricity development and distribution. Hence, the Singapore government was able to iron out kinks more easily in the formulation of development plans for the sector. While the private participants do the work on the ground, the government provides overall leadership in piloting progress in the sector. In contrast, the Philippines struggles with endless debates on how the ERC can discipline the GenCos and DUs and formulate the appropriate rules of engagement. The absence of a clear and enforceable framework also puts the DOE in a bind: how shall the DOE exercise leadership in governing the sector?

Third, the governments of Singapore, Malaysia, and other ASEAN countries have maintained control over the directions of development in the electricity sector. Transmission is firmly in the hands of governments for all the ASEAN countries. However, in the case of Singapore, the EMA has supervisory role in the generation, transmission, distribution, and retailing of electricity by private sector participants. In the case of the wholesale market, Singapore insists on the participation of majority of the GenCos, distributors, and retailers, thus making the market more competitive or market-oriented. In contrast, the WESM in the Philippines is cornered or managed by a handful of GenCos and DUs. WESM itself covers less than 10 percent of the supply, raising questions on how it can truly induce competition in the whole sector.

Fourth, the case of Malaysia shows that a competitive market need not be reduced to a question of having one segment of the sector be totally privatized. The government, through its own Gencos, can promote organized competition between the public and private service providers to the benefits of the consumers. There have been reports on the greater efficiency of government Gencos compared to the private Gencos and IPPs.

However, this does not entice Malaysia to stop the operations of the private Gencos as this will subvert marketization. Incidentally, the foregoing finding on the greater efficiency of public utilities is validated in the 2020 World Bank study. As a result, the World Bank study suggests “pluralism” in the formulation of marketization policies across different countries in the developing world.

REFERENCES

- Ali, Hassan, Han Phoumin, Beni Suryadi, Aitazaz Farooque, and Raziq Yaqub. 2022. “Assessing ASEAN’s Liberalized Electricity Markets: The Case of Singapore and the Philippines.” *Sustainability* Volume Number (Issue Number): Page range of article. <https://doi.org/10.3390/su141811307>.
- Aris, Hazleen and Bo Nørregaard Jørgensen. 2020. “ASEAN power grid 20 years after: An overview of its progress and achievements.” *IOP Conf. Ser.: Earth Environ. Sci.* 463: Page range of Article. <https://iopscience.iop.org/article/10.1088/1755-1315/463/1/012055>.
- Aris, Hazleen and Iskandar Shah Mohd Zawawi. 2020. “The Philippines’ and Singapore’s Journeys Towards Liberalised Electricity Supply Industries—Takeaways for Malaysia.” *Energies* Volume Number (Issue Number): Page Range. <http://creativecommons.org/licenses/by/4.0/>.
- Diokno, Maitet. 2024. “EPIRA’s Fake Promise of Cheaper Electricity.” In *Saan Umabot ang Bente Mo: EPIRA 20 Years After*, 55-77. Manila: Friedrich Ebert Stiftung.
- Foster, Vivien and Anshul Rana. 2020. *Rethinking Power Sector Reform in the Developing World*. Washington: World Bank Group.

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