CONGRESSIONAL PLANNING AND BUDGET DEPARTMENT
HOUSE OF REPRESENTATIVES

# Occasional Paper No. 5

**FEBRUARY** 2007

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# The Challenge of Restructuring the Power Sector and Privatization of NPC Assets*

By Ricardo Mira and Jaime Singson

**Abstract**

*The privatization of 70% of National Power Corporation (NPC) assets in Luzon and Visayas has repeatedly missed its target dates for reasons coming from both inside and outside the power sector. This paper goes deeper into the inside reasons by presenting two problems. First, is the "chicken and egg" syndrome: The Electric Power Industry Reform Act (EPIRA) sets 70% of privatization of NPC assets in Luzon and Visayas as one of the pre-requisites for retail competition and open access; but the private sector is hesitant to bid for generating plants until there is retail competition and open access. Second, the issue of cross-ownership hinders privatization since distribution utilities may refuse to enter into supply contracts with non-affiliated generation plants. More than simply pursuing privatization, it is imperative to effectively address restructuring issues in the supply industry and institutionalize critical competitive features like open access and retail competition.*

## Background

The EPIRA envisioned a regime of fair and free competition in the country's power sector as means to achieve quality, reliable, secured and affordable supply of electricity for the public. It aimed to implement **retail competition and open access** in the supply of electricity in 2004 or three years upon the effectivity of the law in 2001. The law has defined open access as "allowing any qualified person the use of transmission, and/or distribution system, and associated facilities....", a key component to introduce competition in the market where electricity end-users have the power to choose where to source their power requirements.

However, after more than six (6) years since the enactment of the EPIRA, the implementation of open access and retail competition has not been fully realized and the constant delay has been very disappointing. The first target of open access and retail competition was 2004.[1] In the Medium Term Philippine Development Plan (MTPDP) 2004-2010, "open access for end-user with a monthly average peak demand of at least 1

**This paper benefited from the comments of Acting Executive Director Manuel P. Aquino and Director General Rodolfo V. Vicerra.*

*[1] As seen in Section 31 of EPIRA, retail competition and open access should have started not later than three years after the law was passed. However, electric cooperatives were to start 5 years after the law.*

MW for.....will commence in July 2006 for Luzon". Yet again, Rauf Tan, Commissioner at the Energy Regulatory Commission (ERC), presented an optimistic projection at December 2007 and a conservative projection at December 2008 during the Philippine Economic Society's (PES) 44th Annual Meeting (November 2006). He remarked that open access and full retail competition will start in either 2012 or 2013.

## Restructuring and Privatization

While there have already been important milestones in instituting reforms in the power industry, which were also crucial in meeting the conditionalities of implementing open access and retail competition as provided in the EPIRA, the privatization of at least 70% of the total capacity of generating assets of NPC Luzon and Visayas still remain unresolved.[2] The fifth requirement on the transfer of management control of at least 70% of the total energy output of power plants under contract with NPC to IPP administrators, as provided under the EPIRA, also had its share of missing targets.

A delayed privatization program will in turn delay the introduction of competition and open access provision of the EPIRA. A former NPC President posited that this is the prevailing case because the government has been following a flawed strategy of privatizing before restructuring. Even the CPBO has opined in a 2001 discussion note that the ideal scenario in reforming the electric power industry was to ensure that competitive features through restructuring (which entails liberalization of entry, open access, among others) were in place as a prelude to eventual privatization.[3]

Still, the privatization of the NPC's generating assets is seen as a key in dismantling the monopoly in the electricity industry and in bringing about greater efficiency in the generation, transmission and distribution of electricity. Moreover, privatization is also expected to attract substantial investments in the power sector to fend off a looming power crisis. However, the final version of the EPIRA law was, for some reason, implanted with a "catch-22" poison pill probably designed to prevent progress in the restructuring of the industry and the realization of the promised benefits of competition. Some sectors believe that items 4 and 5 of Section 31 of the EPIRA, providing for the pre-conditions for the implementation of open access and retail competition, were unnecessary because the ultimate goal of the government was to privatize the power sector.

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[2] *Section 31 of the EPIRA provided the following conditions to be met before the implementation of open access and retail competition: (1) establishment of the wholesale electricity spot market; (2) approval of the unbundled transmission and distribution wheeling charges; (3) initial implementation of the cross subsidy removal scheme; (4) privatization of at least 70% of the total capacity of generating assets of NPC Luzon and Visayas; and (5) Transfer of the management control of at least 70% of the total energy output of power plants under contract with NPC to the IPP Administrators.*

[3] *Romulo M. Neri and Manuel P. Aquino, Decisions and Possible Outcomes in Reforming the Electric Power Industry, CPBO, Discussion Notes, 2001.*

## Impending Power Shortage

Based on the Power Development Plan showing the supply-demand outlook for 2006-2014, the Department of Energy (DOE) has reported that Mindanao and Visayas power requirements need to be addressed urgently to prevent the islands from experiencing power outages.

If not for the timely implementation of programs that has partly addressed the current and future capacity deficiencies in Mindanao, the critical period would have started in 2006 when required capacity of 1,565 megawatts (MW) has already exceeded the available aggregate dependable capacity of 1,455 MW *(Please refer to Annex 1).*[4] Meanwhile, the critical period for Visayas is estimated to begin in 2008 as the aggregate dependable capacity of 1,541 MW is below the required capacity of 1,591 MW.

## Status of Generation Assets Privatization

The privatization of 70% of NPC generation assets in Luzon and Visayas was originally scheduled to be completed in 2004. Again, seen on Commissioner Tan's presentation at the PES, it was moved to December 2005; then set to December 2007 for an optimistic projection; and December 2008 for a conservative projection.

Of the 21 plants in Luzon and Visayas up for privatization, only about six (6) have already been sold with a total generating capacity of 475.4 MW *(Please refer to Annex 3).* This is equivalent only to 11% of the 4,335.70 MW rated capacity of Luzon and Visayas, required in the EPIRA to be privatized *(exclusive of decommissioned plants).*

[4] *These programs included among others the transfer to the island of the 32-MW power barge 104 in August last year from Panay to Panabo, Davao City, and the commissioning of the 210 MW Mindanao Coal-Fired Thermal Power Plant.*

***Some Official Reasons for the Delay in Privatization***

*The Power Sector Assets and Liabilities Management Corporation (PSALM) reported that the delay in the privatization is attributed to a confluence of factors. Firstly, it took fifteen (15) months from the approval of the EPIRA in June 2001, before the basic pre-requisites for privatization embodied under the Privatization Plan was approved in October 2002.*

*The absence of a supply contract between power producers and its prospective market – i.e. distribution utilities, electric cooperatives, etc., also poses a major reason for the delay. During the transition towards retail competition and open access, power plants are not assured of buyers of their electricity even if they offer lower generation rates. This translates to a lower investor interest; hence, slower pace of privatization. As a remedy, EPIRA allows short-term transition supply contracts between NPC plants for privatization and distribution utilities and others until one year after open access. This will make the now contracted power plants more attractive to investors since a particular power plant has a guaranteed market before and one year after open access. Just after the one-year grace period, the power plant will now compete with other plants for selling their electricity. This will cause power transactions to be based not only on bilateral contracts, but also on merit orders or whomever will have the best bid for the electricity. Thus, true market price will follow. Another cause of delay is the waiting period of PSALM for the approval of NPC creditors in the sale of power plants. NPC plants have previously borrowed extensively from Asian Development Bank (ADB), World Bank (WB) and Japan Bank for International Cooperation (JBIC). Hence, the transfer of ownership of plants sold to new owners will require the consent of the mentioned creditors.*

*Land titles, asset inventory and plant-specific issues have also their share moving the 70% privatization target farther. The privatization of generating assets includes lands where plants are located. These lands add up to about 4,000 parcels, where 575 parcels are under litigation for a variety of reasons. Their issues have to be tackled, in addition to the plants themselves, for agreements acceptable to investors. Inventory of supplies and equipment are included in the calculation of power plant prices. This is a time-consuming task that requires double-checking from the Commission on Audit. Each plant also has specific issues attached to them such as environmental and local government concerns, local tax claims and others. Further, there is a need to coordinate with other government agencies for power plant privatization. The privatization of hydroelectric power plants, for instance, has to be coordinated with the National Irrigation Authority (NIA) and the National Water Regulatory Board (NWRB) which have concerns regarding priority in the release of water from dams, rule curve issues and operation and maintenance of dams, among others.*

*On a greater scale, the privatization and broader ownership (for generation and transmission) policy of EPIRA is a function of investors' appetite. Hence, PSALM takes into account the behavior of private sector when it comes to the proper timing of investments (political and economic shocks), perceived risks and estimated rate of return on investments. Some indicators of investors' behaviors are beyond the control of PSALM. Therefore, there are times when PSALM can only take a reactionary role, compared to being pro-active in plans and projects.*

*8th Status Report on EPIRA Implementation Nov 2005-April 2006, PSALM*

## The "Retail Competition and Open Access" Conundrum

The objective of the EPIRA to achieve retail competition and open access in the country's electricity market can be perceived to be a chicken-and-egg dilemma. As a precondition to implement retail competition and open access, the EPIRA provided the privatization of at least 70% of the total capacity of generating assets of NPC Luzon and Visayas. On the other hand, a major private sector investment concern in the country's generation assets lies in the presence of a generating plant having a guaranteed buyer of its electricity before competition begins. If such a plant has an assured buyer of its power, then it becomes more attractive to an investor.

In retrospect, a factor which seems to bug the privatization process is the perceived "conflict of interest" – where parties involved have a stake in both generation and distribution sectors. When this happens, a generating plant (under a new owner/investor) may have trouble getting a buyer for its power because the latter might prefer getting its supply of power from its affiliate generating company. Therefore, the uncertainty of investors getting a power supply contract for its generating company to a distribution utility may effectively discourage prospective investors.

Some sectors have noted a conflict of interest in the bidding of Masinloc and Calaca power plants, where MERALCO – a dominant buyer of electricity and covering 60% of the country's electricity consumption, and First Generation Holdings Corporation (First Gen) are involved. Meralco is a distribution utility associate of First Philippine Holdings Corp (FPHC); and First Gen is a subsidiary of FPHC.[5] An interested investor in a generation asset may not be able to get a transition supply contract with the dominant Meralco because the latter would reserve buying for its sister company, First Gen. Hence, any generating plant is less attractive when it has no sure buyer for its power.

NPC and Meralco have signed a 5-year transition supply contract in 2006 that will make plants for privatization more viable for private investors. This was a policy reaction to investors' hesitance on bidding for generating plants without supply contracts. Moreover, NPC has decided to source from its various plants the power to be bought by Meralco. This will make the selected plants for privatization more viable for investors as the transition supply contracts are deemed assignable to successor generating companies.

In the government's effort to expedite privatization, it is imperative not only to optimize the revenues that can be generated in the sale of its assets, but pursue effective restructuring of the power sector that will foster competition in an industry that has borne the brunt of monopolistic and monopsonistic features for quite a long time.

[5] *http://www.fphc.com/FphcPrimer_MajorInvestments_Power.php*

## Imperatives

NPC assets privatization is long overdue, as it did not progress as quickly as had been originally targeted. The government must expedite the restructuring that will foster competition and optimize privatization proceeds. Some recommended policies are the following:

1. ***Foster real competition in the power market by mandating use of Merit Order.*** One way to foster competition that could possibly lower the price of electricity is to mandate the effective implementation by distribution utilities of sourcing power supply from the most cost-effective plants, and that merit order[6] is practiced in the dispatch of power plants. Merit order refers to the purchase of power from a particular entity due to its relatively lower price. Compare this to the practice of purchasing power not because of the lower price, but due to a previous contract.
2. ***Amend the cross-ownership provision of the EPIRA.*** The preferential treatment of MERALCO, as a dominant player in power distribution, for its own IPPs (i.e. First Gen) may discourage potential investors in NPC's remaining generating assets, when the issue of perceived "conflict of interest" arises. Proposed amendments of the EPIRA should provide for stricter and more stringent limits to cross-ownership between the distribution and generation sectors, for instance even during the bidding stage. The amendment may also reduce further the maximum 50% of total demand that a distribution utility can source from its affiliated generation company stated in the law.

3. ***Lower the required minimum privatization of NPC plants from 70% to 33%.*** As of latest data, PSALM has only privatized six (6) generating plants with a total installed capacity of the 475.4 MW or roughly 11.0% of the required total generation capacity for Luzon and Visayas. The 70% original target may be lowered to 33%, which is even lower than the 50% set by Senate Bill No. 2232 and House Bill No. 3823. As the target rate is lowered, the timeline for the implementation of retail competition and open access is shortened. Dominant control of a generation entity at the WESM may be subsequently prevented by making transactions at the spot market transparent. This includes publishing the transactions at the internet, where they can be scrutinized 24 hours a day and 7 days a week.

   More importantly, retail competition should be commercially started even if the target privatization requirement has not yet been achieved. This goes to the

[6] *Refers to the purchase of power due from a particular entity due to its lower price. Compare this to the practice of purchasing power to a particular entity not because it has a relatively lower price, but because of a previous contract.*

chicken and egg idea where investors have low incentive to buy plants without open access and retail competition in place; and real competition stalled primarily due to the lack of investors in the country's generating assets.

4. ***Make the bidding process more transparent and promulgate clearer rules.*** Investors, along with their creditors and other partners, need to know complete disclosure statements of the plants that they are bidding for. Further, clearer rules give signal to investors about procedures. Contracts need also to be enforced since predictability is one of the requisites to projects.

Unless related measures are put in place, the benefits of restructuring of the Philippine electric power industry, specifically the privatization of NPC assets, may not be realized. With limited competition in the short to medium term, the most likely outcome is that current inefficiencies will be passed on to customers and businesses. Higher electricity rates will deprive the economy of investment flows and job opportunities for our people, as well as dampen prospects for higher economic growth.

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## ANNEX I
## POWER SUPPLY-DEMAND OUTLOOK

**Luzon**

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| Committed, MW | | | 38.25 | 38.25 | 38.25 | 38.25 | 38.25 | 38.25 | 38.25 |
| Dependable Capacity, MW | 10,576 | 10,576 | 10,576 | 10,576 | 10,496 | 9,846 | 9,846 | 9,846 | 9,846 |
| Required Capacity, MW | 8,302 | 8,614 | 8,949 | 9,319 | 9,721 | 10,150 | 10,607 | 11,093 | 11,596 |
| Peak Demand | 6,728 | 6,981 | 7,252 | 7,552 | 7,878 | 8,225 | 8,596 | 8,990 | 9,397 |

**Visayas**

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| Committed, MW | | 49 | 49 | 269 | 269 | 269 | 269 | 269 | 269 |
| DependableCapacity, MW | 1,536 | 1,541 | 1,541 | 1,541 | 1,541 | 1,491 | 1,491 | 1,491 | 1,491 |
| Required Capacity, MW | 1,424 | 1,498 | 1,591 | 1,683 | 1,787 | 1,895 | 2,014 | 2,143 | 2,283 |
| Peak Demand | 1,154 | 1,214 | 1,289 | 1,364 | 1,448 | 1,536 | 1,632 | 1,737 | 1,850 |

**Mindanao**

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| Committed, MW | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 210 |
| Dependable Capacity, MW | 1,455 | 1,460 | 1,520 | 1,520 | 1,520 | 1,520 | 1,520 | 1,520 | 1,520 |
| Required Capacity, MW | 1,565 | 1,649 | 1,742 | 1,845 | 1,960 | 2,087 | 2,228 | 2,382 | 2,556 |
| Peak Demand | 1,293 | 1,363 | 1,440 | 1,525 | 1,620 | 1,725 | 1,841 | 1,969 | 2,112 |

*Source: Power Development Plan, 2006 Update Supplement*

## ANNEX 2
## LIST OF RETIRED
## DECOMMISSIONED ASSETS

| Plant Name (per grid) | Rated Capacity (In MW) |
|---|---|
| **Luzon** | **425.0** |
| Bataan Thermal | 225.0 |
| Manila Thermal | 200.0 |
| **Visayas** | **54.0** |
| Cebu II Diesel | 54.0 |
| **Mindanao** | **130.3** |
| Aplaya Diesel | 108.0 |
| General Santos Diesel | 22.3 |
| **Total** | **609.3** |

*Source: PSALM*

**ANNEX 3**
**PROGRESS OF PRIVATIZATION**

| List of Generating Assets | |
|---|---|
| **Plant Name (per grid)** | **Rated Capacity (In MW)** |
| **Luzon** | **3,860** |
| Ambuklao | 75.0 |
| Angat | 246.0 |
| Bacman | 150.0 |
| Barit* | 1.8 |
| Binga | 100.0 |
| Calaca | 600.0 |
| Cawayan* | 0.40 |
| Limay Bataan Thermal | 620.0 |
| Magat* | 360.0 |
| Makban | 410.0 |
| Masinloc | 600.0 |
| Masiway* | 12.0 |
| Navotas I & II | 310.0 |
| Pantabangan* | 100.0 |
| Tiwi | 275.0 |
| **Visayas** | **475.5** |
| Amlan | 0.8 |
| Bohol | 22.0 |
| Dingle | 146.5 |
| Loboc* | 1.2 |
| Palinpinon | 192.5 |
| Tongonan | 112.5 |
| **Mindanao** | **119.1** |
| Agusan* | 1.6 |
| Iligan I & II | 114.0 |
| Talomo* | 3.5 |
| **Total** | **4,454.8** |
| | |
| **Total for Luzon & Visayas** | **4,335.7** |

*Note: * assets sold*

*Source: Power Sector Assets and Liabilities Management* Corporation (PSALM)