ADB

Report and Recommendation of the President to the Board of Directors

Project Number: 37752
November 2006

Proposed Program Cluster and Program Loan Republic of the Philippines: Power Sector Development Program

Asian Development Bank

CURRENCY EQUIVALENTS
(as of 2 November 2006)

Currency Unit	–	peso (₱)
₱1.00	=	$0.0200
$1.00	=	₱49.800

ABBREVIATIONS

ADB	–	Asian Development Bank
AGRA	–	automatic adjustment of generation rates and system loss rates
CPSD	–	consolidated public sector deficit
CSP	–	country strategy and program
DOE	–	Department of Energy
DOF	–	Department of Finance
DPL	–	development policy letter
DSCR	–	debt service coverage ratio
DU	–	distribution utility
EC	–	electric cooperative
EPIMB	–	Electric Power Industry Management Bureau
EPIRA	–	Electric Power Industry Reform Act
ERC	–	Energy Regulatory Commission
GDP	–	gross domestic product
GOCC	–	Government-owned and -controlled corporations
GRAM	–	generation rate adjustment mechanism
ICERA	–	incremental currency exchange rate adjustment
IPP	–	independent power producer
JBIC	–	Japan Bank for International Cooperation
LIBOR	–	London inter-bank offered rate
Meralco	–	Manila Electric Company
NEA	–	National Electrification Administration
NPC	–	National Power Corporation
NPP	–	new private providers
PBR	–	performance-based rate
PCG	–	partial credit guarantee
PDF	–	Philippine Development Forum
PEMC	–	Philippine Electricity Market Corporation
PRG	–	political risk guarantee
PRI	–	political risk insurance
PSALM	–	Power Sector Assets and Liabilities Management Corporation
PSDP	–	Power Sector Development Program
PSRP	–	Power Sector Restructuring Program
RORB	–	return on rate base
SAPE	–	sector assistance program evaluation
SPUG	–	Small Power Utilities Group
TA	–	technical assistance
TOU	–	time-of-use
TransCo	–	National Transmission Corporation
TSC	–	transition supply contract
WESM	–	wholesale electricity spot market

WEIGHTS AND MEASURES

GWh	–	gigawatt-hour
kWh (kilowatt-hour)	–	unit of energy
MVA (megavolt-ampere)	–	unit of apparent power
MW (megawatt)	–	unit of power, equal to 1 million watts

NOTES

(i) The fiscal year of the Government ends on 31 December.
(ii) In this report, “$” refers to US dollars.

Vice President	C. Lawrence Greenwood, Jr., Operations Group 2
Director General	R. M. Nag, Southeast Asia Department (SERD)
Director	J. R. Cooney, Infrastructure Division, SERD
Team leader	Y. Zhai, Principal Energy Specialist, SERD
Team members	C. Bellinger, Senior Cofinancing Specialist, Office of Cofinancing Operations
	K. M. Emzita, Counsel, Office of the General Counsel
	S. Hasnie, Senior Energy Specialist, SERD
	Y. L. Feng, Principal Environment Specialist, SERD
	X. Jia, Senior Portfolio Management Specialist, SERD
	Y. Tsujiki, Financial Specialist, SERD

CONTENTS

LOAN AND PROGRAM SUMMARY

Borrower	Republic of the Philippines
Classification	Targeting Classification: General intervention Sector: Energy Subsector: Energy sector development Theme: Sustainable economic growth, private sector development Subthemes: Promoting economic efficiency and enabling markets, private sector investment
Environment Assessment	Category C. The environmental implications were reviewed and no significant adverse impacts were identified.
Rationale	ADB's CSP identifies power sector restructuring as one of the main interventions for directly impacting the most important development constraints, such as the fiscal imbalance and poor investment climate. The restructuring has reached an important juncture. The legal, regulatory, and institutional framework for privatization and competition is largely in place. However, for the restructuring to succeed, the sector's financial viability has to be restored, regulatory performance improved, and the confidence of private sector investors enhanced. The Government needs ADB's support in all these areas to consolidate the restructuring process.
Important Features	Based on lessons from previous operations, a cluster approach is adopted for the Power Sector Development Program (PSDP). The two subprograms that form the Program cluster have 2-year time horizons, one covering 2007–2008 and the other (tentatively) covering 2009–2010. Target dates are set only for subprogram 1. Subprogram 1's accomplishments will be reviewed as it approaches completion, and the scope and schedule of subprogram 2 will be defined as necessary. This will provide flexibility in subprogram 2 design, as adjustments can be made based on the results of subprogram 1 and changes in the external environment.
The Program Loan	
Impact and Outcome	The primary objective of the Program cluster loan is to help restore the financial viability of the power sector, and specifically to support the Government's absorption of NPC's long-term liabilities. For subprogram 1 of the PSDP, the objectives are to (i) provide financial assistance, through a program loan, to help the Government meet part of the power sector restructuring costs; (ii) establish the necessary conditions for substantial progress in the privatization program under subprogram 2; (iii) improve confidence in regulatory performance; and (iv) ensure a smooth transition to competitive electricity markets.
Financing Plan	The Government requires about $9.2 billion in financing for the power sector during 2006–2010. The program loan under

	subprogram 1 of the PSDP will cover $450 million of that amount.
Loan Amount and Terms	To finance subprogram 1, a loan of $450 million from ADB's ordinary capital resources will be provided under ADB's London Inter-bank Offered Rate-based lending facility. The loan will have a 15 year term including a grace period of 3 years, an interest rate determined in accordance with ADB's LIBOR-based lending facility, a commitment charge of 0.75% per annum, and such other terms and conditions set forth in the draft loan agreement.
Program Period and Program Cluster	The program cluster period is tentatively 4 years from 2007 to 2010, with a single tranche of $450 million to be disbursed under subprogram 1. The scope and amount of subprogram 2 will be determined after the Government fulfills relevant policy conditions.
Executing Agency and Implementation Arrangements	The Department of Finance (DOF) is the Executing Agency for the program loan, while the Department of Energy (DOE) is the Implementing Agency. DOF will be responsible for the overall implementation of the Program, including (i) compliance with policy actions, (ii) program administration, (iii) disbursements, and (iv) maintenance of program records. An Energy Executive Committee will be formed to take charge of PSDP's implementation. The committee, comprising of officials and executives of DOE, National Electrification Administration, National Power Corporation, National Transmission Corporation, Philippine Electricity Market Corporation, Philippine National Oil Company, and Power Sector Assets and Liabilities Management Corporation will meet at least once a month and monitor the program implementation progress. DOE will be responsible for the monitoring of the program implementation activities, and reporting implementation progress.
Procurement, and Disbursement	The loan proceeds will be used to finance the full foreign exchange costs (excluding local duties and taxes) of items produced and procured in ADB member countries, excluding ineligible items and imports financed by other bilateral and multilateral sources. The disbursement will be made in accordance with the provisions of ADB's *Simplification of Disbursement Procedures and Related Requirements for Program Loans.*
Period of Utilization	The period for subprogram 1 will be 2007–2008, while the period for subprogram 2 is tentatively 2009–2010.
Benefits and Beneficiaries	Power sector restructuring will have a significant positive impact in the sector, as well as in the economy. With the large-scale privatization and introduction of a competitive electricity market, the Government's role in the power sector will be curtailed. The Government will become a policy maker and planner; and its unsustainable subsidies to the power sector will be reduced to levels needed for electrification in unviable rural areas. Thus, a major fiscal crisis will be averted, and financial resources will be freed up for social services and infrastructure. Restoring financial

viability of the power sector is vital to fiscal consolidation, and will be important in attracting new investments in the power sector.

Risks and Assumptions

While the Government remains committed to power sector reform, the delays in the privatization program have cast doubt on the relevance of the ongoing power sector restructuring. A policy reversal to return to the previous, vertically integrated Government-owned monopoly is a major political risk. This would exacerbate the financial difficulties of the power sector and discourage the private participation that is needed to ensure the long-term sustainability of the sector. The PSDP will provide essential support to the Government to ensure that the reform program is on track. Private investors have perceived ADB's continued support for power sector reforms as an important factor for the successful completion of the reforms. The proposed PSDP, therefore, will contribute to building much-needed confidence among private sector investors at a critical juncture of the power sector restructuring process.

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed program loan under the Program cluster concept to the Republic of the Philippines for the Power Sector Development Program (PSDP). The program design and monitoring framework is in Appendix 1. The policy matrix is in Appendix 2.

II. THE MACROECONOMIC CONTEXT

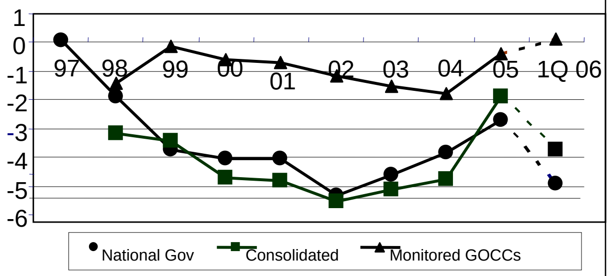
2. The macroeconomic management priority of the Government of the Philippines (the Government) is to maintain momentum on fiscal consolidation. This will leave more budget resources for economic growth and poverty reduction. Also, progress on deficit reduction has emerged as the proxy for financial markets and investors to gauge Government's commitment, capacity, and credibility to deliver on its broader agenda. In July 2005, the Asian Development Bank (ADB) Board endorsed the Philippine country strategy and program 2005–2007 (CSP),[1] which proposes significant levels of policy-based support. However, for the Government to receive that assistance, (i) the budget deficit reduction program must be on track, and (ii) sector-specific reform agendas must be in place. These conditions have been met sufficiently. This section concludes that the macroeconomic progress is on track, allowing ADB's policy-based support to proceed.

3. The erosion of tax collection ratio from 17% of gross domestic product (GDP) in 1997 to 12.3% in 2004, when the decline was arrested, was the primary cause of the rapid increase in the Government budget deficit from 0.1% of GDP in 1997 to its peak of 5.3% in 2002. Meanwhile, escalating losses of nonfinancial Government-owned and -controlled corporations (GOCC) during 1999–2004—especially in the power sector—increased the consolidated public sector deficit as a percentage of GDP.[2] Figure 1 summarizes the history of these three trends. Weak tax collection meant public development expenditure was financed increasingly from borrowings. This increased significantly the Government's debt stock as a percentage of GDP, consequently almost doubling interest expenses from 16.6% of the budget in 1997 to 31.8% in 2005 (Figure 2). The increase in mandatory interest expenses reduced discretionary spending. Capital outlays as a proportion of budget spending almost halved during 1997–2005 (Figure 2), while expenditure on social sectors similarly fell. The Government's access to official development assistance for investment projects was constrained due to the lack of budget cover and counterpart funding. Hence, relatively expensive financing was sourced from international capital markets, feeding back into high debt service commitments. This "vicious circle" needs to be broken to allow public spending for economic growth and poverty reduction.

4. The Government's fiscal consolidation program includes a wide range of initiatives. However, given the serious impact of undercollection of revenues on economic growth and public service delivery, the primary focus has been on broadening the tax base, increasing tax rates, and strengthening tax administration. With a view to front-loading initiatives to increase tax collection, excise taxes on alcohol and tobacco were adjusted from January 2005. Further, the coverage of the value-added tax was expanded from November 2005, and the rate was increased from 10% to 12% from February 2006.[3]

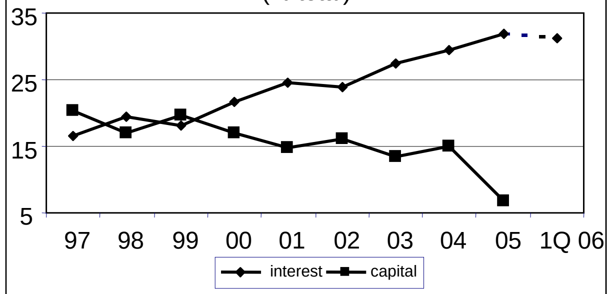
[1] ADB. 2005. *Philippines Country Strategy and Program 2005–2007*. Manila.
[2] The consolidated public sector deficit comprises the financial outcome for the national Government, local governments, government financial institutions, the central bank, and the public social security system.
[3] Many exemptions were removed, with power, oil, medical services, and legal services the most significant. Although the law was passed in July 2005, legal challenges delayed implementation of the exemptions to November 2005, and the rate increase was delayed from January to February 2006 to avoid further challenges.

Figure 1: Deficits/GDP
(%)



GDP = gross domestic product,
GOCC = Government-owned and controlled corporation.
Source: Department of Finance.

Figure 2: Budget Expenditures
(% total)



Source: Department of Budget and Management.

5. Improved operational performance of tax agencies is essential to successful fiscal consolidation. To this end, tax administration has been strengthened by the passage of the Lateral Attrition Law (2005),[4] which provides for performance-based sanctions (including retraining, redeployment, and removal) for employees of revenue-collecting agencies who fall short of revenue targets, and rewards for those who exceed them. Further, focused programs have strengthened tax compliance and enhanced governance of the tax system, including (i) Bureau of Custom's Run After the Smugglers program, (ii) Bureau of Internal Revenue's Run After Tax Evaders program, and (iii) Department of Finance's lifestyle checks on officials under its Revenue Integrity Protection System. These programs are highly publicized, target well-known personalities, and emphasize the increased risk to officials of tax evasion and corrupt practices.

6. In 2005, a reduction in the aggregate deficit of GOCCs complemented these revenue initiatives, reversing a worsening trend since 1999. The most significant contribution was from increases in wholesale electricity prices,[5] which allowed National Power Corporation (NPC)—the largest contributor to the consolidated deficit—to break even in 2005. NPC's financial loss fell from 2% of GDP in 2004 to almost zero in 2005, assisted by improved NPC operational efficiency, Government debt absorption, and appreciation of the peso. Further improvement in aggregate GOCC financial performance is expected from implementing Executive Order No. 366 (October 2004), which requires Government departments, agencies, and corporations to complete strategic reviews to rationalize their functions and staffing. Performance-based budgeting also is being introduced.[6] For local governments, the focus is on (i) strengthening public resource management; (ii) improving the cost-effectiveness of service delivery; and (iii)

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[4] The implementing rules and regulations of the law were released on 30 May 2006, which will allow the performance-based provisions to be implemented from January 2007.

[5] Depoliticizing tariff adjustments has been a major achievement, aided by strengthening the technical capacity and autonomy of the Energy Regulatory Commission, with ADB assistance: ADB. 2004. *Technical Assistance to the Republic of the Philippines for the Institutional Strengthening of Energy Regulatory Commission and Privatization of National Power Corporation*. Manila (TA 4557-PHI, approved 28 December, for $1.2 million).

[6] This is supported under ADB. 2006. *Technical Assistance to the Republic of the Philippines for Government-Owned and -Controlled Corporations Reform*. Manila (TA 4809-PHI, approved on 29 June, for $750,000).

gaining access to a wider range of financing, including public-private partnerships resulting from a better business environment. [7]

7. These efforts are bearing fruit. Tax revenue increased by 15% in 2005, compared with average annual growth of about 6.8% during 2000–2004. For the first time since 1997, the tax revenue increased from 12.3% of GDP in 2004 to 12.6% in 2005, while the Government's budget deficit declined from 3.8% of GDP in 2004 to 2.7% in 2005—the third successive annual improvement. The Government debt stock, meanwhile, fell from 79% of GDP in 2004 to 72% in 2005. The outcomes encouraged, and benefited from, more favorable market sentiment in 2005: (i) foreign direct investment almost tripled (albeit from a low base), (ii) two of the three major credit rating agencies upgraded their outlooks from negative to stable, (iii) sovereign borrowing costs fell,[8] and (iv) the peso appreciated against the dollar beginning in the early part of the year. These translated into significant debt service savings, which was an important contributor to the emergence a "virtuous circle" in 2005. Staying the course of reforms generated improved market sentiment, which in turn generated more favorable conditions for achieving macroeconomic targets.

8. In March 2006, development partners characterized the progress on aggregate fiscal consolidation as "impressive" during the Philippine Development Forum (PDF), which also assessed the program as broadly on track.[9] The emerging trend is better than projected in the Government's Medium Term Philippine Development Plan 2004–2010,[10] and the target for achieving a balanced budget has been advanced from 2010 to 2008. While this target is ambitious, development partners consider it achievable. For 2006, the enhanced value-added tax revenues are expected to total the equivalent of 1.2% of GDP, while the overall tax effort is expected to improve by 1.9 percentage points, from 12.7% of GDP in 2005 to 14.6% in 2006. The Government's budget deficit is expected to decline 1.7 percentage points from 2004 to 2.1% of GDP, while the consolidated public sector deficit is expected to decline 2.7 percentage points to 2.1% of GDP.

9. Risks associated with this scenario relate partly to the magnitude, intensity, and consistency of effort needed to secure recent gains. For example, the tax revenue target for 2010 of 17% of GDP—the same level as in 1997—requires an average annual increase of 0.8 percentage points. The PDF characterized 2005 as "the year of tax legislation" and 2006 as "the year of tax implementation", underscoring the Government's need to secure recent gains to achieve its 2010 goal. Another consideration is the composition and quality of fiscal consolidation. The 2 point reduction in the deficit as a percentage of GDP during 2003–2005 comprised 1.4 percentage points from expenditure reduction and only 0.6 percentage points from increased revenue. The PDF cautioned against disproportionate reliance on expenditure cuts rather than higher revenue collections and pointed out that a lower budget deficit is not inconsistent with higher spending on public infrastructure, health, and education. The comprehensive approach to fiscal consolidation, which includes revenue enhancement, improved public expenditure management, and more efficient service delivery, supports this view. The failure of the executive and legislative branches of Government to agree on the year's

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[7] This is supported under several ADB TA grants, including (i) ADB. 2005 *Technical Assistance to the Philippines for Debt and Risk Management.* Manila (TA 4717-PHI, approved 7 December 2005, for $720,000); and ADB. 2006. *Technical Assistance to the Republic of the Philippines for Local Governance and Fiscal Management*. Manila (TA 4778-PHI, approved 3 April, for $1.8 million).

[8] For example, sovereign borrowing from the international market in January 2006 was secured at 333 basis points over US Treasury bonds compared with about 505 basis points a year earlier.

[9] ADB. 2006. *2006 Philippines Development Forum*. Manila (IN152-06).

[10] Republic of the Philippines. 2004. *Medium Term Philippine Development Plan 2004–2010*. Manila.

budget, resulting in reenactment of the 2005 budget, poses an additional risk in 2006. Thus, achieving the 2006 deficit target will be less onerous under the lower spending of last year's budget, with the possibility of less pressure to improve the tax effort.

10. The CSP sets fiscal triggers for policy-based lending. During 2005–2007, the primary trigger is a reduction in the projected Government deficit of 0.7 percentage points in terms of GDP (CSP, Results Framework, Appendix 8) relative to the 2004 baseline. Further, the CSP requires that "actions to achieve the expected reduction in the deficit/GDP ratio will precede ADB lending operations, rather than actual results of the actions" (footnote 1). Importantly, the CSP notes that, during the period of fiscal consolidation, ADB will provide program support to assist implementation of budgetary, power, and related reforms—as long as the transition remains on track. Thus, a "virtuous cycle" of reform progress and new support will be created: progress elicits new lending, and new lending strengthens reforms. For the transition to operations beyond the CSP period, the trigger is an actual reduction in Government deficit of 1.5 percentage points in terms of GDP, supplemented by the stabilization of the power sector deficit at a substantially reduced level (CSP, para. 55). Table 1 shows how the budget deficit trigger for policy-based lending has been met.

Table 1: CSP's Budget Deficit Trigger for Policy-Based Lending

	2004 (baseline)		**2005** (actual)		**2006** (projected)		**2007** (projected)	
Item	**₱ bn**	**% GDP**	**₱ bn**	**% GDP**	**₱ bn**	**% GDP**	**₱ bn**	**% GDP**
Government Deficit	187	3.8	146	2.7	125	2.1	63	0.9
% point reduction				1.1		1.7		3.0
CPSD	232	4.8	145	1.9	125	2.1	41	0.6
% point reduction				2.9		2.7		4.3
Memo Item:								
Tax		12.3		12.6		14.5		15.0

bn = billion, CPSD = consolidated public sector deficit, CSP = country strategy and program, GDP = gross domestic product, ₱ = peso.
Source: Department of Finance.

11. The second CSP fiscal trigger (CSP, Appendix 8) complements the first, aggregate trigger. It focuses on the main cause of the deficit—inadequate revenues—and the need to achieve fiscal consolidation through enhanced tax revenues rather than expenditure reduction. Table 2 summarizes the core information, showing the improvement in the tax revenues as a percentage of expenditures.

Table 2: CSP's Tax Revenue Trigger for Policy-Based Lending

Item	**2004** (baseline)	**2005** (actual)	**2006** (projected)	**2007** (projected)
Tax Revenue (₱ bn)	598	685	889	1,013
Government Expenditure (₱ bn)	894	963	1,053	1,166
Tax Revenue (% of expenditures)	0.67	0.71	0.84	0.87
Improvement		6%	25%	30%

bn = billion, CSP = country strategy and program, ₱ = peso.
Source: Department of Finance.

12. The financial difficulties of the power sector have a significant impact on the Government's fiscal imbalance and macroeconomic stability. The Power Sector Assets and Liabilities Management Corporation's (PSALM)[11] long-term debt as of September 2004, before the Government's absorption of ₱200 billion of debt, totaled ₱560 billion, representing 67% of estimated Government-guaranteed debt that year.

Table 3: PSALM Debt in the National Context

Item	2002	2003	2004	2005
PSALM long-term debt and IPP lease obligations as a percentage of GOCC consolidated debt[a]	70.5	70.9	66.2	61.6
PSALM long-term debt as a percentage of Government contingent liabilities[b]	63.6	65.1	41.8	59.0

GOCCs = Government-owned and -controlled corporation, IPP = independent power producer, PSALM = Power Sector Assets and Liabilities Corporation.
[a] Defined as total debt of 14 monitored GOCCs, which includes National Power Corporation.
[b] Defined as Government-guaranteed debt.
Source: Department of Finance.

III. THE SECTOR

A. Sector Performance

1. Background

13. NPC, a vertically integrated utility set up to generate and transmit electricity, had primary responsibility for those functions in the Philippines until the power sector was restructured in February 2002. The restructuring followed the promulgation of the implementing rules and regulations for the Electric Power Industry Reform Act 2001 (EPIRA), which the Congress passed in June 2001. Prior to the restructuring, NPC and several independent power producers (IPP) shared electricity generating functions in the country. Privately owned Manila Electric Company (Meralco), 16 privately owned utilities, 7 municipal systems, and 119 rural electric cooperatives carried out electricity distribution. Thirty-five IPPs (about 8,000 megawatt [MW]) have contracts with NPC for the sale of electricity, while three others (about 2,000 MW) have them with Meralco. NPC also owns and operates about 4,500 MW of grid-connected power generating plants.

14. Many of the IPPs entered the power sector as part of a Government-supported solution to the power crisis that the Philippines experienced in the early 1990s. Severe power shortages brought about by power generating capacity deficits constrained the economy. However, the early IPP contracts, mostly with NPC in 1993 and 1994, included high cost premiums due to the perceived investor risks. As such, they undermined NPC's financial position. NPC's debt service burden also increased due to the lack of Government equity inputs for NPC's capital expansion programs, as well as the depreciation of the peso against the foreign currencies in NPC's heavily foreign-denominated debt portfolio. NPC's financial position worsened when the Asian financial crisis suppressed economic growth and reduced electricity demand in 1997–1998, leading to a significant surplus of power generating capacity, especially in Luzon. Consequently, IPP power generating commitments that were protected by long term take-or-pay contracts[12]

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11 PSALM has been created to own and manage the assets and liabilities of National Power Corporation (NPC) and National Transmission Corporation (TransCo), para. 18.

12 Contract between NPC and IPPs, whereby the former agrees to purchase from the latter a fixed quantity of electricity for a given price with Government guarantee. Irrespective of the quantity which is finally needed and

were under-utilized. Thus, NPC's return on rate base (RORB) and debt service coverage ratio (DSCR) in 1997 fell below 8% and 1.0, respectively.

2. Power Sector Restructuring

15. ADB's involvement with power sector restructuring in the Philippines began in early 1994, when policy dialogue intensified with NPC, the Department of Energy (DOE), and the Department of Finance (DOF). Those discussions focused on NPC's deteriorating financial performance, and consequent inability to fund necessary power generation and transmission projects. After the participants agreed that a radical change was needed, NPC provided ADB with its in-house report entitled *NPC Privatization and Restructuring Study* for comment. Extensive and lengthy policy dialogue followed with ADB and the sector's other major funding agencies, which also considered NPC's added financial burden due to the power generation overcapacity that was emerging as a consequence of the Asian financial crisis. The dialogue led to a consensus on initiating a competitive market for electricity in the Philippines.

16. The objectives of the Government initiated power sector restructuring program include (i) creation of an enabling legal and regulatory environment to support competitive markets in electricity; (ii) restoration of the financial viability of NPC before the introduction of competitive markets; (iii) unbundling and corporatization of NPC's operations to facilitate the introduction of competitive markets in electricity; (iv) establishment of the open-access transmission system needed to support a competitive wholesale market for electricity; (v) establishment of open-access distribution systems to support competitive markets in electricity retailing; (vi) improvement of the operational efficiency of the distribution subsector to enable it to participate in competitive markets; (vii) promotion of energy conservation and demand-side management to supplement efficiency gains from competitive markets; (viii) mitigation of the social impact of the transition to competitive markets; and (ix) ensuring environmentally sustainable power generation. These measures were expected to achieve greater operational and economic efficiency, enhance the inflow of private capital, broaden the ownership base of the power sector, and minimize the Government's financial and risk exposure.

17. To support the Government's power sector restructuring program, ADB approved the Power Sector Restructuring Program (PSRP), for $300 million, on 16 December 1998.[13] In December 2002, ADB supplemented this loan with a partial credit guarantee (PCG) to help in financing additional adjustment costs associated with the restructuring.[14] The principal objective of the PSRP was to restore NPC's financial viability and create competitive electricity markets by unbundling generation and transmission, and providing open and equal access to transmission and distribution. The blueprint to achieve these objectives is EPIRA, which provides the legal framework for power sector restructuring and the privatization of NPC. The implementing rules and regulations of EPIRA were promulgated in February 2002. A description of the power sector institutions and the sector road map is in Appendix 3. The Supplementary Appendix provides an extensive and detailed analysis of the energy sector.

18. The power sector restructuring has achieved the following thus far:

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transferred, NPC is bound by its commitments and is required to pay for the whole volume of sales at the contractual terms agreed upon.

13 ADB. 1998. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Republic of the Philippines for the Power Sector Restructuring Program*. Manila.

14 ADB. 2002. *Report and Recommendation of the President to the Board of Directors on a Proposed Partial Credit Guarantee for Fixed Rate Bond Issues by the Power Sector Assets and Liabilities Management Corporation for the Power Sector Restructuring Program in the Republic of the Philippines*. Manila.

(i) NPC's integrated functions were unbundled by separating generation from transmission.
(ii) The National Transmission Corporation (TransCo) was created to take over NPC's transmission assets and operations.
(iii) PSALM was created to (a) oversee and manage the privatization of NPC's generation assets, (b) award the concession for TransCo's transmission operations, and (c) take over the debt liabilities and non-transmission assets of NPC.[15]
(iv) An independent Energy Regulatory Commission (ERC) was created to set rates for the captive market,[16] and for transmission and distribution, which are regulated parts of the electricity supply business.
(v) The Philippine Electricity Market Corporation (PEMC) was created to supervise the establishment of the wholesale electricity spot market (WESM), which started commercial operations in June 2006.
(vi) The DOE was reorganized to perform its expanded mandate of power sector planning and supervision of power sector restructuring.
(vii) Inter-grid, intra-grid, and inter-class electricity tariff cross-subsidies[17] have been removed.

19. In terms of its objectives, the PSRP was successful in putting in place the legal and regulatory framework for the introduction of a competitive market for electricity. Further, the PSRP achieved the unbundling of the power generation and transmission functions, with the provision of open access in the transmission and distribution systems required for the working of a competitive market. The successful start of the WESM on 26 June 2006, and its smooth operation as a viable platform for electricity trading, is another measure of success of the PSRP. However, the restoration of financial viability in the power sector, the substantial privatization of NPC's power generation assets, and the selection of a transmission system concessionaire were not achieved to a significant extent. The capability of the power system to meet expected demand for electricity in the medium term is another area of concern.

B. Issues and Options

1. PSALM's Financial Situation

20. The Government's decision to contract IPPs as a response to the power crisis of the 1990s (para. 14), and the Asian financial crisis after 1997, resulted in NPC incurring huge liabilities. The long-standing liquidity problem of NPC is mainly attributable to its under-capitalization and inadequate tariff adjustments. As a result of its excessive debt and foreign exchange exposure, compounded by its high exposure to market and fuel price risk, NPC has incurred financial losses since 1998. The failure to effectively address these problems has harmed the economy and created a large financial burden on the Government.

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[15] ADB. 2005. *Report on the Transfer of Liabilities and Generation Assets from the National Power Corporation to the Power Sector Assets and Liabilities Management Corporation and Transfer of Transmission Assets from the National Power Corporation to the National Transmission Corporation in the Republic of the Philippines*. Manila (approved on 19 July).
[16] The captive market refers to electricity consumers who do not have the choice of a supplier of electricity.
[17] Inter-grid cross subsidy refers to a subsidy by Luzon grid to Visayas and Mindanao grids; intra-grid cross subsidy refers to a subsidy by Meralco to other distribution utilities within Luzon grid; inter-class subsidy refers to a subsidy by industrial consumers to residential consumers.

21. As shown in Table 4, the financial position of PSALM (consolidated NPC and TransCo) deteriorated significantly from 2002 to 2003. During this period, PSALM's IPP lease obligations increased by 20% due to the commissioning of the San Roque hydropower and the Kalayaan 2 plants, both of which were committed for construction during the late 1990s. The failure to increase generation rates in 2002 to cover IPP liabilities from existing facilities, as well as those of the San Roque and and Kalayaan 2 plants, exacerbated PSALM's financial problems. By the end of 2003, PSALM's assets were less than its accumulated liabilities, implying that the corporation was technically bankrupt. In the absence of a Government equity infusion or subsidy, PSALM relied on commercial borrowings to refinance its maturing obligations. In 2004 and 2005, PSALM borrowed almost $2.2 billion from, among others, the international bond markets.

Table 4: PSALM's (NPC and TransCo) Financial Performance 1998–2005
(₱ billion)

Result of Operations								
Item	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Net Operating Revenues	86.60	89.70	100.10	115.70	116.40	119.20	167.30	165.40
Operating Expenses	79.70	81.20	94.70	108.90	115.90	124.50	145.10	143.60
Operating Income	6.90	8.50	5.40	6.80	0.50	(5.30)	22.10	21.90
Interest Expense	11.00	13.00	15.10	15.10	17.90	24.90	30.20	19.60
Other Income (Expense)	0.50	(1.50)	(3.30)	(2.10)	(16.30)	(86.80)[c]	(21.80)	83.60[e]
Net Income (Loss)	**(3.60)**	**(6.00)**	**(13.00)**	**(10.40)**	**(33.70)**	**(117.00)**	**(29.90)**	**86.00**

Financial Condition								
Item	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Utility Plants[a]	287.10	277.60	273.50	270.10	268.90	268.20	262.80	309.50
Plants Under Capital Lease Lease	166.30	350.90	360.00	367.20	454.70	552.50	528.30	503.50
Other Assets	192.70	233.90	356.30	368.70	429.40	169.30	264.90	266.00
Total Assets	**646.10**	**862.40**	**989.80**	**1,006.00**	**1,153.00**	**990.00**	**1,056.00**	**1,079.00**
Long-Term Debt[b]	214.00	238.80	292.00	290.10	376.30	461.10	348.60	346.00
IPP Lease Obligations[d]	230.50	406.20	485.80	505.00	595.10	716.00	680.70	596.10
Other Liabilities and Credits	72.50	92.00	100.90	117.40	120.80	140.10	164.00	158.30
Total Liabilities and Deferred Credits	**517.00**	**737.00**	**878.70**	**912.50**	**1,092.20**	**1,317.20**	**1,193.30**	**1,100.40**
Net Assets	**129.10**	**125.40**	**111.10**	**93.50**	**60.80**	**(327.20)**	**(137.30)**	**(21.40)**

( ) = negative, IPP = independent power producer, NPC = National Power Corporation, ₱ = peso, PSALM = Power Sector Assets and Liabilities Corporation

[a] Depreciated replacement cost of power plants plus construction work in progress.

[b] Includes bond and loan principal net of current portion.

[c] Includes a one-off charge of ₱78 billion due to a change in the accounting treatment of foreign exchange and IPP losses. The loss drops to ₱39 million when measured on a comparable basis to 2002.

[d] PSALM's total liabilities relating to capacity fee obligations (capital cost recovery) under long-term power purchase agreements. The decrease in lease obligation in 2004 was due to expiration of two IPPs.

[e] Includes gain on foreign exchange fluctuation of ₱78.7 billion.

Source: Power Sector Assets and Liabilities Management Corporation.

22. To ease PSALM's financial burden, the Government exercised the option of assuming part of PSALM's long-term liabilities, as provided for by EPIRA. On 31 December 2004, the Government assumed a portion of PSALM's financial obligations, totaling about ₱200 billion. On 13 April 2005, ERC issued its final approval for an increase of ₱1.0353/kilowatt-hour (kWh) in

power generation base rate, effective from 26 April 2005. ERC also approved additional increases of ₱0.4239/kWh through the generation rate adjustment mechanism (GRAM) and ₱0.14/kWh through the incremental currency exchange rate adjustment (ICERA) to recover increasing fuel costs and unfavorable currency fluctuations.

23. As a result of these financial adjustments, PSALM averted a liquidity crisis and turned around its financial position. For the first time in 7 years, PSALM reported a positive net income (₱7.9 billion) in 2005 before inclusion of foreign exchange gain. After inclusion of a large (non-cash) foreign exchange gain (₱78 billion), PSALM reported a record high net income of ₱86 billion in 2005, compared with a record low of ₱117 billion net loss (including ₱78 billion of foreign exchange loss) in 2003. PSALM's DSCR, a key indicator of its financial health, improved considerably to about 0.81 times in 2005, compared with extremely low levels of 0.13 in 2003 and 0.15 times in 2004. A sharp reduction of PSALM's share of the consolidated public sector deficit, from a record high level of 2.0% of GDP in 2004 to an estimated 0.1% in 2005, was another indicator of its improved liquidity position.

24. With further progress in the power sector restructuring and privatization, PSALM's financial position would improve due to (i) revenue from the sale of NPC generation facilities, (ii) revenue from the transmission grid concessionaire, (iii) Government's absorption of any further PSALM debt, (iv) revenue from the stranded debt and stranded contract cost portion to be included in the universal charge levied on all electricity end users for IPP contracts approved by the Government before 31 December 2000, and (v) financial gains from renegotiating IPP contracts. Following EPIRA's mandate, PSALM has renegotiated substantially 20 of the 35 contracts that NPC has with IPPs, resulting in savings of about $1 billion in discounted present value terms. However, EPIRA also requires that all outstanding financial obligations of electric cooperatives (EC) to National Electrification Administration (NEA) and other Government agencies be forgiven and assumed by PSALM, and that the electricity retail rate of each EC be reduced by an amount commensurate to the resulting savings.

2. Privatization Program

25. The PSRP and EPIRA targets for privatizing the eligible NPC power generating plants were optimistic, primarily due to (i) the continuing effects of the Asian financial crisis, which constrained electricity demand growth; and (ii) the rapid private sector implementation of large blocks of more environmentally acceptable, natural gas-fired power generating plants in Luzon with Government support. This reduced the utilization of older NPC-contracted IPP power plants and NPC's own power plants until electricity demand rebounded to higher levels. The lack of prospective market share in the near term, therefore, limited investor interest in bidding for eligible NPC power generating plants in the last few years. However, steadily growing electricity demand, the Government's vigorous efforts to associate transition supply contracts to eligible NPC power generating plants, and the initial operations of the WESM are stimulating greater private sector interest in acquiring eligible NPC power generating plants. Further strengthening of ERC under the PSDP also will help allay private sector perceptions of regulatory and country risks.

26. Some general factors also have hampered the ongoing privatization program. First, since the adoption of EPIRA and the start of the privatization program, many US and European investors in the power sector have encountered serious financial difficulties, while others have scaled down their investment particularly in developing countries. The commercial lenders that suffered losses from their investments in the 1990s also have reduced their exposure to the power sector. In addition to these external factors that affected all emerging markets, investors

perceive the country and regulatory risks associated with political events in the Philippines to be high. Although the ERC has been making steady progress in fulfilling its mandate under EPIRA, several of its decisions have been challenged and reversed by the Supreme Court based on procedural lapses.[18] These judicial interventions affect investors' confidence in the new regulatory framework.

27. In countries that have successfully implemented privatization of generation assets, bilateral supply contracts[19] generally were attached to these assets to provide a viable market for investors and a bankable project for lenders. Without such contracts, investors are unable to mobilize long-term financing from commercial banks. Concluding such bilateral contracts between power generation plants and distribution utilities (DU) is relatively easy when both parties are initially government-owned. In the Philippines, however, the private sector traditionally has owned DUs, which are not compelled under EPIRA to sign long-term bilateral supply contracts with NPC's power plants. Since EPIRA envisages the introduction of retail competition for large consumers with demand over 1 MW, DUs might face competition for such consumers and even lose part of the business in their franchise areas. For example, with the prospect of losing its monopoly in its franchise area, Meralco—accounting for 56% of national electricity sales—has refused to enter into a bilateral supply contract with NPC. Even if Meralco and/or some DUs enter into bilateral contracts, potential investors for generation assets still will need to assess the credit risk of these electricity offtakers.[20] This is particularly important if the offtaker is an EC.[21] The recent decision by Mirant Corporation,[22] the largest IPP investor in the Philippines, to sell its assets in the country also creates serious competition for the Government's privatization program, since Mirant's IPPs will retain their original Government-guaranteed bilateral contracts for electricity sales.

28. The EPIRA target was the privatization of 70% of NPC's eligible capacity in Luzon and Visayas by June 2004. Seven hydroelectric power plants, with a combined rated capacity of 115.4 MW, have been auctioned off (for $134 million)—i.e., only 2.7% of the 4,336 MW of eligible generation assets for privatization. The bidding for the 360 MW Magat Hydroelectric Power Plant is scheduled before the end of 2006. The bidding for the 600 MW coal-fired Masinloc Thermal Power Plant failed because the winning bidder was unable to secure financing for its purchase in the absence of a bilateral supply contract. Similarly, the bidding for the 600 MW Calaca Thermal Power Plant failed because the best offer did not meet the Government's reserve (minimum expected) price. PSALM is negotiating bilateral contracts to be

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[18] As an example, on 16 August 2006, the Supreme Court declared invalid the ERC's approval of Meralco's tariff adjustment for the recovery of its purchase cost under GRAM, because the adjustment was not published for public consultation.

[19] A bilateral contract is a contract between a generator and a purchaser for a market-trading period to supply a specific quantity of electricity at a quoted price. If the market price for that period is higher than the quoted price, the generator will refund the difference to the purchaser; if the quoted price is higher than the market price, the purchaser will refund the difference to the generator.

[20] Meralco's Foreign Currency Corporate Credit Rating by Standard & Poor's suffered nine downgrades in the last 4 years, from BB+ in 1999 to CC in 2003. As one of the major creditors of Meralco, ADB has granted the necessary consents and waivers, allowing Meralco to refinance its short-term unsecured debt liabilities of $228 million maturing in 2004–2006 with a 7-year secured loan facility under a comprehensive liability management plan. Subsequently, Standard & Poor's raised its long-term credit rating on Meralco to B- in February 2005.

[21] Including Meralco, the Philippines has 19 investor-owned utilities (81% of countrywide retail sales) and 120 customer-owned ECs (19% of countrywide retail sales). These are classified into four categories: A–creditworthy, financially self-sufficient (about 25% of the DUs); B–partially creditworthy, large size and density, with potential efficiency gains (about 10%); C–marginal viability, unable to attract private financing (about 35%); and D–nonviable, operating in low-density and disadvantaged areas (about 30%).

[22] Mirant Philippines assets include the 1,218 MW coal fired power plant in Sual, Pangasinan; the 735 MW coal-fired power plant in Pagbilao, Quezon; and a 20% share in the 1,200 MW Ilijan natural gas facility in Batangas.

assigned to each plant eligible for privatization, and rebidding the Masinloc and Calaca plants in light of the lessons from the failed bids. The demonstrated satisfactory operation of the WESM provides an incentive for investors to sell at least part of the output from an electricity generation project, and also will make investors factor in project location advantages in the grid for future dispatch and market share. For DUs (including Meralco), the potential price volatilities of the WESM will be an incentive for them to enter into bilateral contracts with power generators.

29. For the TransCo concession, two auctions failed due to an insufficient number of qualified bidders.[23] In accordance with EPIRA, the private concessionaire of TransCo will need to obtain from Congress a national franchise to operate the transmission facilities. However, Congress has refused to grant such a franchise to a future concessionaire without knowing its identity, i.e., before the selection process is completed. In May 2006, PSALM launched a third round of bidding, and received 12 expressions of interest. In September 2006, three consortia of bidders submitted prequalification documents. In contrast to the previous two rounds of bidding, a new concession structure has been adopted that will require financial closing only after Congress grants a franchise. Although time-consuming, this structure will reduce regulatory risks to the investor.[24] Along with ADB, the World Bank and the International Finance Corporation have announced their intention to provide political risk guarantee and/or funding for the bidders. The bid opening is scheduled on 20 December 2006.

3. Transition to Competitive Markets

30. The WESM, established with ADB financing,[25] began commercial operations on 26 June 2006 with several important risk mitigation measures in place. These include (i) the stipulation of bid caps on wholesale electricity spot prices to arrest abnormal volatility and consequent market instability; (ii) the establishment of a tripartite market monitoring committee, comprising ERC, DOE, and PEMC; and (iii) the designation of NPC and PSALM as default wholesale suppliers to those bulk offtakers of grid electricity that might have difficulty in directly participating in the WESM. These actions will enhance the credibility of the WESM.

31. While the privatization is in progress, PSALM and NPC are assuming on a transitional basis the trading role in WESM for NPC-contracted IPP electricity generating plants and NPC's own generating plants. PSALM has established four trading teams, representing the four groups of NPC-contracted IPP generating plants proposed to be allocated later to IPP administrators. NPC also has established nine trading teams for its own power stations. While these arrangements try to simulate the electricity trading structure that should exist at the end of privatization, the reality is that all trading affects the same public participants (PSALM and NPC). Moreover, NPC procures all fuel and coordinates maintenance for all power plants including IPPs. Therefore, the private sector and investors might perceive these arrangements

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[23] The first bidding in July 2003 failed as only one party, Singapore Power, submitted a pre-qualification proposal. The second bidding held in August 2004 also failed as only the same party submitted an Expression of Interest.

[24] Originally, the Government decided to proceed with a two-phase approach for TransCo's privatization. Phase 1 would commence upon award of the concession to the winning bidder. At that time, the concessionaire would assume responsibility for the functions of repair, maintenance, expansion, construction, and financing of the transmission network. As the franchise for operation of a public utility would be with TransCo during phase 1, the non-delegable functions (e.g., monitoring and control of the transmission system, and filing of rates with the ERC) would remain with TransCo. Phase 2 would commence when Congress awards a franchise to the concessionaire, after which the concessionaire would take over all the operational functions of TransCo.

[25] ADB. 2002. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Republic of the Philippines for the Electricity Market and Transmission Development Generation Project*. Manila (Loan 1984-PHI).

as "coordinated trading."[26] In August 2006, ERC addressed the structural issues arising from the dominant position of PSALM and NPC in generation, and Meralco in distribution, by promulgating competition rules and complaint response procedures to ensure fair competition.

4. Security of Supply

32. In the short term, the Philippines does not face a risk of a countrywide electricity supply shortage, as experienced in the early 1990s. The tables in Appendix 4 show the electricity demand forecasts for each of the three main grids in the country (Luzon, Visayas, and Mindanao). Based on the forecast demand growth rate, Luzon will need new generation capacity around 2012 to provide adequate capacity margin. The supply situation in the Visayas is more acute, with additional generation capacity required in 2009. In August 2006, a consortium of foreign investors entered into an agreement with NPC, which acts as an aggregator of the power demand of various DUs, to build a 200 MW coal-fired power plant in Cebu for commissioning in 2009. In Mindanao, commissioning of the 200 MW Mindanao coal-fired power plant in January 2007 will alleviate the electricity supply situation for about 2 years to 2009.

33. Therefore, increased private sector participation in power generation clearly is needed, particularly since EPIRA does not provide for a default investor for power generation, and NPC is prohibited from providing new power generating capacity or purchasing power through new bilateral contracts from IPPs. However, the open access power transmission and distribution envisaged under EPIRA enables private sector power generators to provide electricity to the market of DUs and eligible retail customers. ERC needs to facilitate this mode of bridging supply and demand. The mechanisms and measures under EPIRA should improve the investment climate and create conditions that promote generation investment to ensure power supply in the country. However, these measures cannot guarantee adequate, market-driven generation investment. For this reason, DOE will maintain a contingency plan that defines the Government's responsibility to ensure generation adequacy if generation investment is insufficient (para. 59).

C. Lessons

34. The Philippines is among the first ADB developing member countries to implement fundamental power sector restructuring, with substantive privatization of generation assets and concessionaire agreements with private parties to operate transmission assets, to achieve a competitive market for electricity. In the prevailing economic environment, this is an ambitious and complex task that involves coordinated actions on legislative, regulatory, and policy measures spread over a reasonably long period. A more appropriate modality for fundamental power sector restructuring of the magnitude envisaged under the PSRP would have been a cluster approach, which would have prioritized and sequenced the reforms more realistically in phases. In the first phase, the PSRP could have concentrated on establishing a sound policy, legal, and regulatory framework to introduce a competitive market. Laying the ground work for the transfer of assets, privatization, and absorption of stranded debt could have been accomplished in subsequent phases.

35. Therefore, one important lesson is that power sector restructuring in developing countries is a long process. As such, the design of policy reforms should recognize the need for a steady approach with a phased and realistic implementation schedule. The PSRP, as

[26] The allegation of price manipulation by PSALM in October 2006 was an illustration of such concerns.

designed in 1998, underestimated the complexities of the prevailing investment climate—judicial and regulatory—which plays a significant role in privatization of power entities. Further, the legislative branch in the Philippines has some unique characteristics that can make any important decision a lengthy process. The investment climate also has been affected by the judiciary overruling ERC rulings and weak contract enforcement, as manifested in some private sector deals involving public utilities. As such, adequate regulatory independence and broader improvements in governance of the judicial system must be ensured for power reforms to move ahead in a timely manner.

36. Most of these findings have been mirrored in the recent evaluation of the PSRP in the Philippines.[27] The policy matrix of the PSRP included 60 actions and measures to be completed by the Government within 3 years. In April 2004, the evaluation by the Program Completion Review found a high level of formal compliance, with 80% of those measures fully implemented and 20% partly implemented. The legal, regulatory, and institutional framework largely was established; NPC was unbundled and corporatized; and the preparations for privatization and wholesale competition were advanced. However, the objectives of making the sector financially viable, and privatizing NPC's assets were not achieved. In addition, ERC's technical expertise under the new regulatory regime raised concerns.

37. Theoretically, timely privatization of generation and transmission assets ought to reduce financial difficulties of public sector power utilities and ease government budget pressure. However, the PSRP underestimated the nexus between the public sector liabilities and high fiscal deficit, which impacted the ability to meet adjustment costs. As a result, the progress of power sector restructuring was slowed. Over the past few years, inefficiencies of Government-owned corporations have perpetuated the fiscal deficit and eroded the Government's ability to finance the structural adjustment costs of power entities. Such financing is essential to facilitating privatization and restoring power sector financial sustainability. As such, future power sector operations should recognize the nexus and complexities of debt resolution of state enterprises at a time of high and unsustainable fiscal deficits. In the Philippines, the fiscal deficit will continue to impede the prospects of an early absorption of NPC's stranded debt, which in turn constrains the ability of PSALM to raise resources at competitive prices. Moreover, the restructuring cost should take into account the possible timing mismatch between cash inflows from the expected privatization revenues and cash outflows, particularly in the initial years.

38. In particular, preparation of the PSDP benefited from the Sector Assistance Program Evaluation (SAPE) [28] of ADB's assistance to the Philippines' power sector. The SAPE provided a comprehensive and independent assessment of ADB's assistance to the sector, and identified lessons and areas where ADB could work more effectively to achieve its development objectives. With the sector reforms at a critical transition phase, and the sector still needing a huge amount of liquidity to meet its financial obligations, SAPE concluded that ADB should not cease support. In terms of future assistance in the power sector, SAPE recommended that ADB (i) support sector reforms through policy-based lending and technical assistance (TA); (ii) restrict public sector lending to solvent entities, and avoid supporting projects that increase financial losses and indebtedness; and (iii) support private sector participation in the power sector through improved governance and transparency. Accordingly, the proposed PSDP will provide policy-based lending to assist the Government's reform agenda and facilitate private sector investment.

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[27] ADB. 2004. *Project Completion Report on the Power Sector Restructuring Program in the Philippines.* Manila.

[28] ADB. 2005. *Sector Assistance Program Evaluation of Asian Development Bank Assistance to Philippines Power Sector.* Manila.

39. Important lessons also can be derived from ADB's overall experience with policy-based adjustment lending in the Asia and Pacific region. A special evaluation study[29] called for greater flexibility in program design by considering the standard two-tranche design with a relatively short implementation period, as well as options with single tranche and program clusters—the latter allowing a process approach rather than a blueprint approach. The study pointed out the importance of political economy factors, such as (i) the commitment to, and the timing of, the reform; (ii) the length of the government tenure; and (iii) the extent of the crisis. An evaluation of ADB operations in the Philippines[30] also emphasized the importance of such factors, concluding that flexibility in implementation schedules was essential for program lending to allow for the impact of political economy factors.

D. External Assistance and Funding Agency Coordination

40. ADB is the lead official development partner in the energy sector, with a focus on the electricity subsector. Since 1971, ADB has provided 28 loans with a combined amount of $2.3 billion to the energy sector. This has included 20 loans to NPC, guaranteed by the Government, with a combined value of $1.6 billion. In addition to lending, ADB provided two PCGs to help NPC raise long-term funds totaling $642 million. ADB has also provided 34 TA grants to the energy sector with a combined value of $15 million, covering areas such as (i) coal industry development, (ii) rural electrification, (iii) energy conservation, (iv) tariff and pricing studies, (v) regulation, (vi) consumer impact assessment, (vii) geothermal steam and natural gas pricing studies, (viii) power development planning, (ix) feasibility studies, and (x) environmental assessments. A list of ADB assistance to the energy sector is in Appendix 5.

41. The World Bank also has been active in the power sector. To improve coordination of ADB- and World Bank-assisted operations, ADB and the World Bank reached an understanding in 1998 on the division of responsibility in the power sector. According to this understanding, ADB would take the lead in providing policy advice to the Government on power sector restructuring, while continuing support to NPC before its privatization. The World Bank would assume a more prominent role in rural electrification programs. Other major multilateral and bilateral agencies involved in the sector include the Japan Bank for International Cooperation (JBIC), the Japan International Cooperation Agency, the United States (US) Overseas Private Investment Corporation, and the US Agency for International Development. ADB has been coordinating its assistance to the sector with other agencies, particularly the World Bank and JBIC. A summary of major external assistance to the power sector is in Appendix 6.

42. In preparing the PSDP, ADB, JBIC, the World Bank, DOE, and other Government agencies held several meetings to ensure the close coordination of external support for the power sector reform agenda. Given ADB's history of support for power sector reforms in the Philippines, and the comprehensive program that it has designed with Government agencies in recent months (as reflected in the PSDP), the Government considered it appropriate for ADB to continue its lead role, at the same time welcoming continuation of the strong support from other development partners. ADB and other development partners are strongly aligned on the overall reform agenda, and on the need to restore financial health of PSALM and facilitate privatization. The development partners also share an understanding of the urgency for power sector reforms to support the Government's broader task of fiscal consolidation, which is the primary focus for macroeconomic management. The World Bank is supporting the Government's fiscal consolidation through a development policy loan (DPL), which includes a component to support

[29] ADB. 2001. *Special Evaluation Study on Program Lending*. Manila.
[30] ADB. 2003. *Country Assistance Program Evaluation in the Philippines*. Manila.

the power sector. The World Bank also approved a TA grant to complement ADB's assistance,[31] and is considering a partial risk guarantee for the private concessionaire of TransCo (para. 29).

IV. THE PROPOSED PROGRAM

A. Rationale, Objective, and Assistance Modality

43. ADB's CSP 2005–2007 for the Philippines (footnote 1) identifies power sector reform as one of the main interventions for directly impacting the most important development constraints, such as the fiscal imbalance and poor investment climate. As the lead financing agency in the sector, ADB has continued to conduct policy dialogue, as well as review and monitor the power sector reform and privatization process. While recognizing the main issues and challenges, ADB continues to support the broad direction for power sector restructuring.

44. The restructuring has reached an important juncture. The legal, regulatory, and institutional framework for privatization and competition is largely in place. However, for the restructuring to succeed, the sector's financial viability has to be restored, regulatory performance improved, and the confidence of private sector investors enhanced. The Government needs ADB's support in all these areas to consolidate the restructuring process. Despite the commitment demonstrated by the Government to honor existing IPP contracts, the private sector is still cautious about investing large funds in the power sector due to the perceived political, regulatory, and commercial risks. The Government has requested additional ADB assistance for the sector restructuring to (i) correct the long-term financial problems of the sector, (ii) strengthen the regulatory performance, (iii) enhance conditions for privatization, and (iv) improve public confidence in the reforms.

45. The goal of the PSDP is a financially sustainable, efficient, and secure power supply that arrests the power sector's drain on the Government's finances, freeing up resources for the social sectors, and minimizes the risk of power shortages that would impede economic growth.

46. Because of uncertainties about the scope and completion dates of some actions that are beyond the direct control of the Government, a program cluster consisting of two subprograms is proposed. The lessons from the PSRP with regard to the design of a reform program are clear: (i) the program should cover only areas directly relevant to its objectives, (ii) an overly complex policy matrix with too many measures should be avoided, (iii) the measures should be objective- rather than action-oriented, (iv) the schedule for program implementation should be realistic, and (v) a longer time frame should be factored in where measures beyond government control are needed (e.g., legislative changes). Lessons (i)–(iii) are reflected in the policy matrix (Appendix 2), while lessons (iv) and (v) are taken into account by following a cluster approach (i.e., subprogram 1 and subprogram 2). The two subprograms have 2-year time horizons, covering 2007–2008 and tentatively 2009–2010. Target dates are set only for subprogram 1 to allow flexibility in the overall implementation schedule. As subprogram 1 approaches completion, its accomplishments will be reviewed. The results will help define the scope and schedule of subprogram 2. This flexibility in program design will allow adjustments to be made based on the results of subprogram 1 and changes in the external environment.

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[31] World Bank. 2006. *Philippines: Preparation of Private Sector Development Support/Guarantee for Power Sector Reform Project*. Washington, DC.

47. For subprogram 1 of the PSDP, the objectives are to (i) provide financial assistance, through a program loan, to help the Government meet part of the power sector restructuring costs; (ii) establish the necessary conditions for substantial progress in the privatization program under subprogram 2; (iii) improve confidence in regulatory performance; and (iv) ensure a smooth transition to competitive markets. Since the financial recovery of the power sector is essential to fiscal consolidation, the upfront actions of the PSDP—such as the increase in NPC's generation tariff and the Government's assumption of ₱200 billion of NPC's debt—are among the first important steps to restore the power sector's financial viability. Effective and timely implementation of the PSDP will lead to a reliable and financially sustainable power sector, while contributing to the Government's fiscal consolidation.

48. Tentatively, subprogram 2 may include a PCG to support PSALM's debt management, and political risk guarantee (PRG) to facilitate private sector investment in power generation and transmission. ADB expects to leverage its own resources by cooperating with commercial and official political risk insurers through the use of coinsurance and reinsurance. ADB might require a counter-indemnity or other assurance from the Government, depending on the level of risk associated with the contractual obligations and commitments it has been asked to guarantee.

B. Policy Framework

49. The policy matrix (Appendix 2) describes the main policy actions necessary to achieve the PSDP's objective: (i) ensuring financial viability of the power sector, (ii) strengthening the sector regulatory framework, (iii) restructuring the market towards competition, (iv) promoting private sector participation in the power sector, and (v) enhancing consumer welfare and protection.

1. Financial Viability of the Power Sector

50. The main actions required to improve the financial viability of the power sector will focus on (i) timely tariff adjustment to reflect fuel cost and foreign currency fluctuations, coupled with NPC and TransCo capital expenditure prioritization and operating cost control; (ii) use of privatization proceeds to reduce borrowings; (iii) introduction of a universal charge component in the power tariff to cover stranded costs and debt; (iv) liability management and debt refinancing on more favorable terms; (v) Government payment to PSALM for non-power cost of multipurpose projects; and (vi) appropriate budgetary assistance for PSALM to achieve a DSCR of at least 1.0 by the end of 2009. In particular, the introduction of the universal charge must be achieved before the processing of subprogram 2. Subprogram 2 may include a PCG to assist PSALM's debt management program, and help meet the debt repayment peak around 2009–2010.

51. In addition to justifiable adjustments in the average tariff levels, the tariff structure needs to be modified to reflect more accurately the cost of supplying electricity at different times of day, in different grids, and to different consumer classes. ERC took the first step by approving time-of-use (TOU) tariffs at the generation level,[32] which NPC will charge to the DUs and its large direct consumers. This will be followed by the introduction of TOU pricing at the retail level for consumers with a peak demand of at least 1MW, initially in Meralco's franchise area through a customer choice program. By providing the right signals to such consumers, they will reduce

[32] The cost of supplying electricity is highest during the peak load period, because new generation capacity would be required if the demand were to exceed the available capacity. On the other hand, the cost of supply is as low as the incremental fuel costs during the low load period at night. The TOU tariffs will benefit large consumers who have the ability to shift load to off-peak periods.

their demand during peak hours, curtailing the need for additional capacity. Another measure for restoring the financial viability is the removal of cross-subsidies. Inter-grid and intra-grid cross-subsidies have been removed. The removal of the remaining inter-class cross-subsidies[33]—from large industrial and commercial consumers to residential consumers—is in progress to provide the right price signals.

52. Given the large number of ECs, and their technical and financial problems, an approach needs to be developed, and guidelines issued, for improving their efficiency and financial viability. This can be done through operational and structural reforms, such as merger, consolidation, integration, and bulk procurement. Action under subprogram 1 requires the Government's commitment to strengthen financially weak electricity offtakers, especially ECs, with tariff rationalization and mandatory restructuring.

2. Regulatory Framework and Performance

53. The success of restructuring will depend to a large extent on public and investor confidence in sector regulation. This confidence will be based on perceptions of ERC's technical expertise, efficiency, regulatory consistency, and susceptibility to political and other pressure. Effective sector regulation also relies on the competence and reliability of other sector participants. If regulated entities fail to submit requests for tariff adjustments, or do so with incomplete or inaccurate data, ERC will be unable to act, will act with incomplete information, or will be forced to delay proceedings while waiting for the parties to complete the information.

54. The proposed PSDP will not provide institutional development and capacity enhancement assistance to public and private sector participants. Clear guidance and discipline from ERC is expected to promote improvement in their performance. The proposed PSDP and ongoing TA[34] will support ERC's institutional development, and organizational efficiency and effectiveness. They will support ERC's ability to (i) respond efficiently and fairly to regulatory demands; (ii) continuously improve its technical competence; and (iii) communicate clearly and effectively on regulatory matters with the public, regulated parties, and investors. Further, the policy actions in the PSDP also support ERC's administrative autonomy, through the use of independent counsel, and its financial autonomy, through the use of fees levied from regulated utilities.

55. Several of ERC's decisions have been challenged and reversed on procedural bases, which is not surprising given the breadth, complexity and political sensitivity of ERC's tasks. ERC is making steady progress in fulfilling its mandate under EPIRA. In particular, under the ongoing ADB TA (footnote 31), ERC has promulgated Rules of Practice and Procedure to improve the efficiency, transparency, consistency, and predictability of its hearing and investigative procedures. Through nationwide public consultations, and the posting of its decisions and guidelines on a Web site, ERC has enhanced the transparency of its decisions. These efforts and improvements will reduce significantly the scope for judicial interventions on procedural grounds.

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[33] ERC has begun removing inter-class cross-subsidies for ECs. On 8 October 2004, ERC approved a two-phase removal of such cross-subsidies for customers of Meralco.

[34] ADB. 2004. *Technical Assistance to the Republic of the Philippines for Institutional Strengthening of Energy Regulatory Commission and Privatization of National Power Corporation.* Manila.

3. Market Restructuring Toward Competition

56. The WESM is an important component of the restructuring. The WESM began commercial operations on 26 June 2006 in the Luzon grid (paras. 30 and 31) and its operations are expected to be expanded to the Visayas grid in 2007, if warranted by the initial experience in Luzon and the power supply situation in those areas. The WESM will (i) provide appropriate price signals for capacity additions and demand-side management, (ii) ensure optimal scheduling of power plants, (iii) reduce the need for regulation at the generation level, and (iv) contribute to greater private sector participation and competition in power generation and supply. In the long run, this will reduce the Government's involvement in power generation and supply.

57. With more than 40% of electricity sales in Luzon traded through the WESM, wholesale electricity prices declined during the first two months of WESM operations. However, market participants also face potentially higher risks as demonstrated by the recently rising WESM prices. Signing of bilateral contracts with a power generator will provide a hedge against price volatility, as well as ensure a more stable power supply. For power plants that are not yet privatized, PSALM will assign transition supply contracts (TSC), signed between NPC and DUs (or other purchasers) and approved by the ERC. These TSCs can be converted into bilateral contracts with the new plant owners, who can transit smoothly to the WESM. However, measures are needed to ensure the creditworthiness of DUs (or purchasers). This would generate confidence among generators that the DUs will be able to meet their financial commitments.

58. Under subprogram 2, the WESM will be expanded to Mindanao, if warranted by the experience in Luzon and Visayas under subprogram 1 and the power supply situation. Also under subprogram 2, retail competition will start, initially only for consumers with a peak demand of at least 1MW. This will increase efficiency in the downstream segment of the power supply chain, as pressure will be exerted on DUs to keep their tariffs low for such consumers by (i) reducing system losses, (ii) removing inter-class cross-subsidies, and (iii) optimizing their wholesale power purchase contracting. Following the experience gathered with retail competition for such large consumers, the benefits and costs of expanding the competition to residential and other small consumers will need to be assessed, taking into account the experience of other, more advanced competitive foreign markets.

59. The length of the transition period until the market functions properly and induces capacity additions by the private sector is difficult to estimate. To ensure a reliable power supply during this period, the Government must be ready to play a backstop role, when necessary. As the WESM is being implemented for the first time in the Philippines, the Government, through DOE, will prepare a contingency plan and information program that examines conventional supply, demand-side, and distributed generation options to ensure a reliable power supply in accordance with EPIRA,[35] without disrupting the development of a competitive energy market. This should include publication of information needed for investment decisions, such as forecasts of the demand-supply balance, sector planning, and business opportunities.

[35] Section 71 of EPIRA stipulates: "Upon the determination by the President of the Philippines of an imminent shortage of the supply of electricity, Congress may authorize, through a joint resolution, the establishment of additional generating capacity under such terms and conditions as it may approve."

4. Private Participation in Power Generation and Transmission

60. The priority actions to be pursued by PSALM to increase private sector participation include:

(i) completing the negotiations on TSCs between NPC and the DUs to facilitate the ongoing process of bidding out NPC generation capacity to the private sector;
(ii) initiating a customer choice program to allow direct contracting between generators and large customers (those with a demand over 1 MW); and
(iii) introducing regulatory requirements and incentives for electricity offtakers to enter into TSCs by imposing a premium on sale prices for DUs that rely on default wholesale supplier arrangements without such contracts.

61. Given the numerous factors that can affect the timely implementation of the privatization program, subprogram 1 does not include specific targets for selling a significant part of NPC's generation capacity. Instead, it focuses on enhancing the necessary conditions for implementation of the privatization program. The sale of NPC's generation capacity would continue under subprogram 2. To achieve the envisaged large-scale private participation in power generation and transmission, DOE will make available adequate and consistent information needed for investment decisions. This applies to the various documents on sector planning, such as the Philippine Energy Plan, Power Development Program, and Transmission Development Plan. DOE also must provide information on project opportunities, specifying main project parameters, such as recommended location, capacity, fuel, and timing.

5. Consumer Welfare and Protection

62. The success of the power sector restructuring will depend on public acceptance of reform measures, some of which are painful for consumers, at least in the short term. The ongoing public information campaign should be continued and intensified. The unavoidable need for the restructuring has to be explained by pointing out what would likely happen in its absence, and by outlining its medium- and long-term benefits. The campaign should be accompanied by promulgating consumer rights. ERC has issued the bill of rights for consumer protection and its implementation guidelines.

63. To protect electricity consumers from service interruption, ERC has issued guidelines on the supplier of last resort in case of a retail electricity supplier's suspension from the WESM. The guidelines also cover the appointment of a default temporary wholesale supplier for DUs and ECs that are unable to participate in the WESM and the contract market. Furthermore, ERC has established a public complaint procedure, a consumer complaint desk at ERC, and a consumer welfare desk at each of the DUs.

64. When cross-subsidies are removed, welfare losses are possible, especially for poor households, which are generally more vulnerable than the non-poor. ERC has established "lifeline rates" for marginalized end users. The lifeline rate provides grid-connected end users that consume low levels of electricity with a reduced electricity rate. The subsidies provided by the lifeline rate schemes are extensive. With the changes in the sales mix, the lifeline rates might need to be reviewed and modified, or replaced by a different subsidy mechanism, to improve targeting and protection of the poor. For example, although the lifeline rates within the Meralco franchise area are not applicable to all electricity consumers, they are still relatively

generous regarding the monthly consumption threshold.[36] These rates probably benefit more than the poor, and the discounts given might not be sufficient to cushion adequately the impact of tariff increases on the poor. Although untargeted assistance to large groups of consumers might be politically popular, it is not sustainable.

C. Important Features of the PSDP

65. The policy framework for subprogram 1, as outlined in the policy matrix, aims to (i) restore the sector's financial soundness; (ii) address the regulatory concerns of investors; (iii) start wholesale competition; (iv) improve the investment climate for privatization, including educating the public about the rationale for the restructuring; and (v) protect consumer welfare. Under subprogram 2, whose scope and schedule can be modified based on the results of subprogram 1, (i) the sector's financial soundness will be preserved; (ii) wholesale competition will be expanded; (iii) retail competition will be started; (iv) a significant part of eligible generation assets will be privatized; and (v) TransCo concession will be awarded.

66. Specifically, the policy actions prescribed under the PSDP will address the major constraints that affected the privatization of NPC, including the lack of bilateral supply contracts and the low creditworthiness of DUs. The policy actions are designed as a holistic solution with a multipronged approach that recognizes the complexity of these issues and the interactions between stakeholders. To promote signing of bilateral contracts, DOE requires all DUs to ensure adequate supply capacity for their captive markets, while ERC imposes a significant cost premium for DUs relying on the wholesale supplier of last resort (i.e., their demand is not covered by a TSC and the WESM). The expected price volatilities in the WESM also will motivate DUs to enter into bilateral supply contracts to optimize their market risk profile. However, the bilateral contracts signed with DUs will help the privatization process only if these DUs, particularly ECs, are creditworthy. Under the PSDP policy framework, DOE will implement an action plan to consolidate ECs. For ECs that rely on wholesale supplier of last resort and fail to cure the problems within a specified period, this plan will include actions such as mandatory NEA or NPC transitional participation in the boards of ECs, as appropriate; and investment management contracts with private investors. In parallel, ERC has issued guidelines to enable small and/or weak ECs to participate in the WESM through wholesale aggregators. The World Bank's System Loss Reduction Project,[37] will also help to strengthen ECs.

67. The cluster approach will allow the Government and ADB to design subprogram 2 based on implementation and experience gained under subprogram 1, as well as to reflect changes that might occur in the external environment during subprogram 1. DOE will undertake a review toward the end of subprogram 1. The review will result in a report, submitted for consideration to ADB, that (i) assesses compliance with policy actions under subprogram 1, (ii) assesses progress with implementation of activities under the PSDP, and (iii) defines requirements for adjustments to the scope and timing of activities to be undertaken under subprogram 2. The review will be based on the program framework (Appendix 1) and the policy matrix (Appendix 2), the principal tools for program performance monitoring and review.

[36] Meralco customers with a monthly consumption of less than 50 kWh receive a discount of 50%, between 51 kWh and 70 kWh receive 35%, and between 71 kWh and 100 kWh receive 20%. ERC is revising the lifeline policy.

[37] World Bank. 2004. *Philippines: The System Loss Reduction Project.- Project Approval Document.* Washington, DC.lp

D. Cost and Financing Plan

68. The proposed PSDP will help the Government finance part of the adjustment costs of the restructuring, and will support implementation of agreed policy actions. The power sector will continue to require significant funding support from the Government during 2006–2010, thereby remaining a challenge to the Government's efforts at fiscal consolidation. As shown in Table 5, the power sector will require about $9.2 billion in direct Government financial support during 2006–2010, which will be met mainly through (i) universal charge for stranded liabilities to be introduced by January 2008, (ii) Government budget allocations to cover part of interest payments of Government-absorbed NPC loans, (iii) Government commercial borrowings to cover interest and principal payments of Government-absorbed NPC loans, and (iv) PSALM's commercial borrowings with Government guarantee to cover PSALM's deficit. A detailed analysis of PSALM's financial performance and projections is in Appendix 7.

Table 5: Power Sector Financial Requirements, 2006–2010
($ million)

Year	Debt Service on Absorbed NPC Loans		PSALM Deficit	Total
	Principal	Interest		
2006	640	324	1,172	2,136
2007		263	1,052	1,315
2008		263	894	1,157
2009	500	228	1,663	2,391
2010		221	1,951	2,172
Total	**1,140**	**1,299**	**6,732**	**9,171**

NPC = National Power Corporation, PSALM = Power Sector Assets and Liabilities Management Corporation.
Source: Asian Development Bank estimates.

69. Table 6 below shows the financing plan for 2006–2010. The PSDP will help the Government meet part of power sector liabilities. Under subprogram 1, a policy-based program loan of $450 million will be provided, which accounts for 4.9% of the total financing requirement during the period. The Government's direct contribution (through budget allocations and commercial borrowing) will be $1,889 million, representing 20.6% of the requirement. The collection of the universal charges from January 2008 will generate $3,162 million, or 34.5% of the financing requirement, during 2008–2010. PSALM will rely on commercial borrowing to raise $3,670 million,[38] representing 40.0% of the requirement. Under subprogram 2, ADB will consider PCGs to assist PSALM with raising commercial borrowing on competitive terms.

Table 6: Power Sector Financing Plan, 2006–2010
($ million)

Sources	Amount	%
Asian Development Bank	450	4.9
Universal charges	3,162	34.5
Government budget and/or commercial borrowing	1,889	20.6
PSALM commercial borrowing	3,670	40.0
Total	**9,171**	**100.0**

PSALM = Power Sector Assets and Liabilities Management Corporation.
Sources: Asian Development Bank estimates.

[38] On 25 October 2006, PSALM raised $500 million 10-year bonds with Government guarantee.

70. The ADB loan of $450 million, from its ordinary capital resources, will have a 15-year term, including a grace period of 3 years. The loan will carry an interest rate determined in accordance with ADB’s London Interbank Offered Rate (LIBOR)-based lending facility, and a commitment charge of 0.75% per year. As the Borrower, the Government has provided ADB with (i) the reasons for its decision to borrow under ADB's LIBOR-based lending facility based on these terms and conditions; and (ii) an undertaking that these choices were made independently, and did not rely on any communication or advice from ADB. The loan, expected to be utilized over 24 months from January 2007 to December 2008, will be released in one tranche upon meeting the conditions of the policy matrix and upon loan effectiveness. Before subprogram 2 is processed, the Government will have to demonstrate satisfactory progress with implementation of subprogram 1.

71. To complement ADB’s program loan, the World Bank will support the power sector as a component of its Development Policy Loans (DPL), which is envisaged to be provided in the amount of $250 million. The DPL also will include other policy areas, including (i) fiscal consolidation and macroeconomic stability, (ii) governance and anticorruption, (iii) investment climate, and (iv) social inclusion. For the power sector, the priority actions required under the World Bank’s DPL form an integral part of the policy matrix developed under PSDP. The financial resources provided by the World Bank will help the Government to reduce costly commercial borrowings.

E. Implementation Arrangements

1. Program Management

72. DOF is the Executing Agency for the program loan, while DOE is the Implementing Agency. DOF will be responsible for the overall implementation of the Program, including (i) compliance with policy actions, (ii) program administration, (iii) disbursements, and (iv) maintenance of program records. The Energy Executive Committee before the Effective Date will be formed to take charge of PSDP’s implementation. The committee, comprising officials and executives of DOE, NEA, NPC, PEMC, Philippine National Oil Company, PSALM, and TransCo, will meet at least once a month. DOE will be responsible for the monitoring of program implementation activities, and reporting implementation progress.

2. Procurement and Disbursement

73. The loan proceeds will be used to finance the full foreign exchange costs (excluding local duties and taxes) of items produced and procured in ADB member countries, excluding ineligible items (Appendix 8) and imports financed by other bilateral and multilateral sources. In accordance with the provisions of ADB’s *Simplification of Disbursement Procedures and Related Requirements for Program Loan*,[39] the proceeds of the program loan will be disbursed to the Government as the Borrower. Supporting import documentation will not be required, if during each year that loan proceeds are expected to be disbursed, the value of Philippines’ total imports minus imports from nonmember countries, ineligible imports, and imports financed under other official development assistance is equal to or greater than the amount of the loan expected to be disbursed during such year. The Government will certify its compliance with this formula with each withdrawal request. Otherwise, import documentation under existing

[39] ADB. 1998. *Simplification of Disbursement Procedures and Related Requirements for Program Loans*. Manila

procedures will be required. ADB reserves the right to audit the use of loan proceeds and verify the accuracy of the Government's certification.

3. Counterpart Funds

74. The Government will use counterpart funds generated by the program loan, under arrangements satisfactory to ADB, to support the sector restructuring and meet the adjustment costs associated with the PSDP, as agreed upon by the Government. The counterpart funds generated from the loan proceeds will be transferred from the Treasury to DOF to meet the costs and counterpart funding requirements of the Program.

4. Anticorruption

75. The Government was advised of ADB's Anticorruption Policy and Policy relating to the Combating of Money Laundering and the Financing of Terrorism. Consistent with its commitment to good governance, accountability and transparency, ADB will require the Government to institute, maintain, and comply with internal procedures and controls following international best practice standards for the purpose of preventing corruption or money laundering activities or the financing of terrorism and covenant with ADB to refrain from engaging in such activities. The documentation between ADB and the Government will further allow ADB to investigate any violation or potential violation of these undertakings. In particular, all contracts financed by ADB in connection with the Program shall include provisions specifying the right of ADB to audit and examine the records and accounts of the EA and all contractors, suppliers, consultants, and other service providers as they relate to the Program.

5. Monitoring and Review

76. In cooperation with DOF and DOE, ADB will review periodically the implementation progress of the PSDP, and will assess the impact of the PSDP on the sector. The Government will keep ADB informed of the outcome of policy discussions with other multilateral and bilateral agencies that have implications for implementation of the PSDP, and will provide ADB with the opportunity to comment on any resulting policy proposals.

6. Accounting, Auditing and Reporting

77. DOE shall prepare and submit to ADB (i) semi-annual progress reports on program implementation and (ii) a subprogram 1 final review report by December 2008. The report will (i) evaluate the implementation of the policy reform measures under the subprogram 1 of PSDP, (ii) assess the impact on the sector, (iii) describe lessons from the program period, and (iv) outline further reforms and assistance needed for the development of the sector. In particular, given the need to closely monitor the financial recovery of the power sector, the Government will require PSALM to furnish ADB with certified copies of PSALM's audited consolidated financial statements, including the financial statements of NPC and TransCo, not later than 6 months after the end of each related fiscal year.

78. The policy matrix (Appendix 2) contains 22 actions that are conditions precedent to submission of the PSDP to the Board. Satisfactory implementation of the PSDP, and compliance with seven actions, is required to enable processing of subprogram 2. During subprogram 1, 16 policy actions need to be accomplished, while seven actions must be accomplished during subprogram 2. Documentary evidence, in a form satisfactory to ADB, is required to demonstrate compliance with each of the actions in the policy matrix.

V. PROGRAM BENEFITS, IMPACTS, AND RISKS

A. Benefits and Impacts

79. Power sector restructuring will have a significant positive impact on the sector, as well as on the overall economy. With the large-scale privatization and introduction of a competitive electricity market, the Government's role will be reduced to that of a policy maker and planner. Further, its unsustainable subsidies to the power sector will decline to levels needed for electrification of unviable rural areas. Thus, a major fiscal crisis will be averted, and financial resources will be freed up for social services and infrastructure. Restoring financial viability to the power sector is essential to fiscal consolidation, and will be a key to attracting new investments in the power sector.

80. The proposed ADB loan will help to lower the financing costs of PSALM and contribute to lowering the universal charge. When compared with Government bonds issued at the prevailing market conditions, the annual interest savings are estimated to total about $5 million a year during the 15-year loan tenure.

81. The removal of cross-subsidies that benefit residential consumers will ease the burden on industries, thereby improving their international competitiveness. The TOU pricing will reduce demand during peak hours, resulting in more efficient use of power facilities. After the initial pain caused by the need to increase electricity tariffs to levels required for cost recovery, efficiency gains brought about by competition will lower these costs in the medium and long run. This will benefit all consumers.

82. The lifeline tariff policy (para. 64) is to be supplemented by programs to improve and make less costly the access of poor households, especially the rural poor, to electricity supply. Such programs are financed through the universal charge component of the tariff to provide electrification for the poor. The Government has launched a major rural electrification program, which aims to electrify all *barangays*[40] in the country by 2008 and 90% of households by 2017. As of December 2005, about 94% of the barangays in the country had access to electricity, compared with 68% in 1998 when the power sector restructuring started.

83. Though the Philippines' GDP has grown steadily in recent years, the growth has not been pro-poor.[41] The high electricity tariff was one of the factors that constrained poverty reduction. As electricity is an input to most economic processes, it is an important ingredient of economic development that is essential for poverty reduction. Provision of electricity throughout the country has been identified as one of the main tasks of the Government's Medium Term Development Plan (footnote 10). The proposed PSDP will assist in providing a reliable electricity supply to satisfy the forecast electricity demand, including the accelerated rural electrification initiatives. The sustainable power supply and application of a lifeline rate will benefit poor consumers. A summary of the Poverty Reduction and Social Strategy of the Program is in Appendix 9.

B. Program Risks and Safeguards

84. ADB has been advocating and supporting the Government's power sector restructuring program since it approved the PSRP in 1998. While the Government remains committed to

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[40] A unit of administration consisting of 50–100 families under a headman.
[41] ADB. 2005. *Poverty in the Philippines: Income, Assets, and Access.* Manila.

power sector reform, the delays in the privatization program have cast doubt on the relevance of the power sector restructuring. A policy reversal to return to the previous vertically integrated, Government-owned monopoly is a major political risk. Such a move would exacerbate the financial difficulties of the power sector and discourage the private participation that is needed to ensure long-term sustainability of the sector. The PSDP will provide essential support to the Government to ensure that the reform program is on track. Private investors have perceived ADB's continued support as an important factor for the successful completion of the power sector reform. Therefore, with the privatization program at a critical juncture, the proposed PSDP will contribute to building much-needed confidence among private investors. Without such strong support from ADB, the momentum developed towards achieving the objectives of the power sector reform is unlikely to be sustained.

85. PSALM continues to be exposed to significant financial risks that could threaten the entity's viability at any time, and undermine the Government's financial condition. As shown in Appendix 7, even under the most optimistic scenarios, significant Government intervention and support is required to restore the financial viability of the power sector. A delay in the introduction of the universal charge for stranded liabilities will mean an additional burden of about $3.2 billion on the Government's finances between 2008 and 2010. The Government agreed to improve PSALM's cash generation, including the timely introduction of a universal charge for stranded liabilities. Under subprogram 2, ADB may consider a PCG to help PSALM implement debt restructuring options to address the cash flow mismatch over the succeeding 5 years.

86. The power sector restructuring has been underway in the Philippines for five years since the promulgation of EPIRA. During this period, capacity and technical skills of the Government agencies concerned have been strengthened considerably. Nevertheless, to avoid design weaknesses and implementation delays, lessons from the PSRP have been incorporated. Further, extensive consultations have been held with the Government and its agencies; development partners, such as JBIC, US Agency for International Development, and the World Bank; potential private investors; and other stakeholders. Target dates are set only for subprogram 1 to allow flexibility in the overall implementation schedule. The program cluster approach also provides flexibility in design. As subprogram 1 approaches completion, its accomplishments will be reviewed. The results will help define the scope and schedule of subprogram 2.

87. To persuade investors and lenders and other political risk insurers to finance energy projects in the Philippines, the proposed PSDP will be used as an anchor to offer investors (to cover subordinated debt, for example), as well as foreign and domestic commercial lenders (to the extent required), long-term PRGs covering the risks of (i) inconvertibility; (ii) political violence; (iii) expropriation; and, when appropriate, (iv) breach of contract.[42] ADB's PRG would provide investors and lenders the comfort that the Government stands behind its obligations and commitments. Specifically, the Government recently advised ADB that some interested bidders for the TransCo concession might require a PRG to facilitate the financing of their acquisition. To allay investors' concerns, the Government has asked ADB and World Bank to prepare a letter of interest about the availability of their respective PRGs. If a bidder requires a PRG from ADB for TransCo, a separate Report and Recommendation of the President will be prepared for

[42] The Proposed PSDP will satisfy the participation requirement for credit enhancements, including guarantees, that may be considered to support private participation in power generation and transmission. See ADB. 2006. *Review of the Asian Development Bank's Credit Enhancement Operations*, Manila (para. 57, endorsed by the Board on 29 August).

consideration by the Board. Given the potentially large size of PRGs for this project, ADB is prepared to cooperate with other guarantors (public and private) to mobilize the additional amounts of coverage required.

88. A review of the environmental implications of the proposed PSDP found them to be largely positive, though indirect, if the goals in the policy matrix are achieved as designed. The potential positive impacts of the PSDP include:

(i) factoring environmental costs of power generation and transmission into a rationalized and viable tariff system to ensure sufficient financing for air pollution control and power sector environmental management;
(ii) better safeguarding of power sector environmental compliance by strengthening the ERC institutional framework to ensure compliance (including the Environmental Compliance Certificate) when issuing licenses to generators and suppliers of electricity;
(iii) progressively reducing air pollution from thermal power generation and watershed management pressure associated with hydropower generation by improving power sector efficiencies through ERC provision of performance-based regulations and guidelines; and
(iv) indirectly reducing power sector environmental impact by strengthening consumer awareness of energy efficiency and conservation.

VI. ASSURANCES

A. Specific Assurances

89. In addition to the continued compliance and implementation of the actions specified in the Program's policy matrix and standard assurances, the Government has given the following specific assurances, which have been incorporated in the loan agreement:

(i) **Policy matrix.** The Government will ensure the satisfactory implementation of the program and will fully comply with the actions set out in the policy matrix that need to be complied with during subprogram 1 and prior to Subprogram 2 to enable processing of subprogram 2. The Government will submit documents, in a form satisfactory to ADB, as evidence to demonstrate compliance with each of the actions set out in the policy matrix.

(ii) **Continuity and coordination of reforms.** The Government will (a) carry out the policies and actions in accordance with the schedule of policy reforms contained in the policy matrix and ensure sustainability of the reforms beyond the Subprogram 1 period; (b) carry out all of its obligations as stipulated under the Loan Agreement in a timely manner; and (c) ensure that the agreed actions are taken with respect to each policy achievement.

(iii) **Policy dialogue.**

(a) The Government will keep ADB informed of, and will from time to time exchange views on, the progress made in carrying out subprogram 1. Furthermore, the Government will continue timely policy dialogue with ADB on problems and constraints encountered during implementation of subprogram 1 and on appropriate measures to overcome or mitigate such problems and constraints.

(b) The Government will keep ADB informed of policy discussions with other multilateral and bilateral agencies that have implications for implementation of subprogram 1 and will provide ADB with an opportunity to comment on any resulting policy proposals. The Government will take ADB's views into consideration before finalizing and implementing any such proposals.

(iv) **Counterpart funds.** The Government will ensure that the counterpart funds will be used to support power sector reform and to meet the adjustment costs associated with the Program Cluster. The counterpart funds generated from the loan proceeds will be transferred from the Treasury to DOF and DOE to meet the costs and funding requirements for implementing the sector restructuring, in addition to the funds allocated annually to DOF and DOE.

(v) **Subprogram 1 review and evaluation**

(a) **Information.** DOF and DOE will assist ADB by providing relevant data and information in such detail as ADB may reasonably request to facilitate review by ADB of the progress in the implementation of subprogram 1.

(b) **Reports.** DOE will prepare semi-annual progress reports on subprogram 1 implementation for submission to ADB.

(c) **Subprogram 1 review.** DOF will ensure that a review is undertaken by DOE for subprogram 1 to design the proposed subprogram 2 of the Program Cluster based on implementation studies undertaken and experience gained under subprogram 1 and to reflect changes that may occur in the external environment during the subprogram 1 period.

(d) **Subprogram 1 review report.** A subprogram 1 review report will be submitted to ADB that (1) assesses compliance with the policy actions under subprogram 1, (2) assesses progress with implementation of complementary activities under the overall reform program, and (3) defines requirements for adjustments to activities to be undertaken under the proposed subprogram 2 of the Program Cluster. The program review report will be submitted by 31 December 2008.

B. Condition for Program Loan Effectiveness

90. The following is the condition for program loan effectiveness:

(i) The Government will have established the Energy Executive Committee, which will consists of representatives from DOE, PSALM, PEMC, NPC, TransCo, NEA and the Philippine National Oil Company. The Committee will be responsible for the implementation of the Program Cluster.

VII. RECOMMENDATION

91. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and, acting in the absence of the President, under the provisions of Article 35.1 of the Articles of Agreement of ADB, I recommend that the Board approve the program cluster concept with a program loan of $450,000,000 under Subprogram 1 to the Republic of the Philippines for the Power Sector Development Program from ADB's ordinary capital resources with interest to be determined in accordance with ADB's LIBOR-based lending facility; a term of 15 years, including a grace period of 3 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft Loan Agreement presented to the Board.

Liqun Jin
Vice-President

10 November 2006

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
Impact Financially sustainable, efficient, and secure power supply that arrests the drain on the Government's finances, and minimizes the risk of power shortages	Government financial support to NPC, currently exceeding $ 1 billion per year, reduced by 2010 to subsidies required for power supply on small islands not connected to the three main grids (SPUG) No power supply shortage	National Expenditure Program prepared by the Department of Budget and Management PSALM's and NPC's annual reports audited by COA DUs' annual reports; DOE's statistics as contained in the Philippine Energy Plan	
Outcome Consolidation of the power sector restructuring	Wholesale electricity competition started, substantial progress in privatization, and retail competition in line with EPIRA by the end of 2010	PSALM's semiannual progress reports to JCPC on the EPIRA implementation	**Assumptions** Macroeconomic and political stability Strong fiscal stabilization program Support of reforms by stakeholders other than the Government **Risk** Weakening of the political will in the executive and legislative branches of the Government to proceed with the restructuring
Outputs A. Financial viability of the power sector restored	Debt service coverage ratio of 1.0 achieved in PSALM's operations from 2009 onwards	PSALM's annual reports audited by COA	**Assumption** ERC approval of needed tariff increases and universal charges, and successful debt management by the Government and PSALM
B. Regulatory framework and performance improved	ERC's institutional capacity and financial autonomy strengthened by the end of 2008 Regulatory framework for wholesale competition completed by mid-2006	Feedback from regulated utilities and ERC annual report Rules and guidelines as issued by ERC	**Risk** Political and judicial interference with ERC's decision making **Assumption** Continued support to ERC by USAID and other development partners

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
C. Market restructured toward competition	WESM operations started in Luzon in July 2006, accounting for at least 10% of total sales	PEMC's audited annual reports	**Risk** Technical problems with the startup **Assumption** Technical and financial readiness of WESM participants
	WESM operations expanded by end-2007 to Visayas	PEMC's audited annual reports	
	Consumer choice program for TOU rates started in 2007 for consumers with loads of 1MW or more in Meralco's franchise	Signed contracts between suppliers and eligible consumers	**Assumption** Technical readiness of DUs
D. Private participation in power generation and transmission increased	Significant part of eligible NPC's generation assets (at least 30%) sold by the end of 2008	Signed contracts between PSALM and private investors	**Risks** Lack of investor interest Bidding process and/or outcome contested by Congress or in courts
	The remaining part of NPC's eligible generation assets sold by the end of 2010	Signed contracts between PSALM and private investors	
	TransCo concession awarded by the end of 2008	Signed contract between PSALM and the concessionaire	
E. Consumers informed and protected	Rights and obligations of consumers promulgated by the end of 2005	Magna Carta and remedial procedures for consumers as issued by ERC	
	Adequate social protection mechanism for the poor implemented by the end of 2007	ERC-approved retail tariff schedule	
Activities A. Financial Viability of the Power Sector			
A.1 Ensuring financial recovery of NPC	Generation tariffs increased and operating costs reduced to levels required to eliminate NPC's losses	ERC-approved generation tariffs NPC's annual reports audited by COA	**Risk** Tariff increases contested in courts by consumer groups

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
A.2 Establishing creditworthiness of PSALM	Action plan adopted to increase PSALM's debt service coverage ratio to at least 1.0 by 2009	Action plan as approved by the Government	
	₱200 billion of NPC's debt liabilities absorbed by the Government selected and transferred by the end of 2005	Legal instrument to effect the transfer	**Assumption** Effective fiscal management by the Government
	Universal charge introduced by January 2008 to cover NPC's stranded costs and debt	ERC-approved wholesale and retail tariffs	**Risk** Universal charge contested in courts by consumer groups
B. Regulatory Framework and Performance			
B.1 Enhancing ERC's independence, efficiency, and technical competence	Rolling strategic plan for ERC adopted by October 2006	Strategic plan adopted by ERC	
	ERC allowed to use fees levied on regulated entities for funding prescribed regulatory activities	Approved ERC budget	Delays in Congress
B.2 Completing the regulatory framework for wholesale and retail competition	Guidelines issued by mid-2006 on pricing methodology for WESM, system loss cap for DUs, transmission capacity development, and open access for distribution	Guidelines as issued by ERC	
	Performance-based regulation implemented by the end of 2006 for TransCo and DUs	Guidelines as issued by ERC, and applications of TransCo and DUs approved	
	Regulation for ECs simplified and an approach developed for reducing their number by the end of 2008	Guidelines as issued by ERC	**Risk** Political resistance at local level to EC consolidation

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
C. Market Restructuring Toward Competition			
C.1 Preparing the start of wholesale competition	Negotiation of transition supply contracts completed by the end of 2006.	ERC-approved signed contracts between NPC and DUs	**Risk** Inability of the parties involved to arrive at mutually acceptable solutions
	Independent operator for WESM appointed by the end of 2008	Signed contract between PEMC and the WESM operator	
	Mechanisms established by end-2006 to mitigate offtake risks, allow participation of smaller DUs, and ensure power supply in case of DU suspension from WESM	Consultant report and DOE's and PEMC's decision on its recommendations	**Assumption** Implementation of DOE action plan with the support of the World Bank loan and TA to manage creditworthiness risk of DUs, particularly ECs
D. Private Participation in Power Generation and Transmission			
D.1 Ensuring reliable power supply during the transition period	NPC's and TransCo's investments prioritized by mid-2006	Government-approved revised investment plan of NPC and TransCo	
	Contingency plan put in place by the end of 2006	Contingency plan as prepared by DOE	
D.2 Paving the ground for asset sale	Relevant plans regularly updated and made consistent	Philippine Energy Plan, Power Development Plan, and Transmission Development Plan as issued and/or approved by DOE	
	Award of TransCo concession by the end of 2007	PSALM's semiannual progress reports to JCPC on the EPIRA implementation	
	Bids called in a phased manner for NPC's power plants	Invitation to bid and bid documents as issued by PSALM	

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
E. Consumer Information and Protection			
E.1 Conducting public information campaigns on the rationale for power sector restructuring	Public understanding of the matter improved	Surveys of the general public by DOE	
E.2 Assessing the social impact of the power sector restructuring	Existing social protection mechanism of lifeline tariffs reviewed; and, if necessary, modified by mid-2008 to better target the poor	ERC's review report and ERC's decision	
Activities with Milestones Subprogram 1 (2007–2008): Policy-based Loan Subprogram 2 (2009–2010): to be determined (partial credit guarantee, political risk guarantee might be considered)			**Inputs** ADB loan: $450 million PCG, PRG amounts to be determined

COA = Commission on Audit, DOE = Department of Energy, DU = distribution utility, EC = electric cooperative, EPIRA = Electric Power Industry Reform Act, ERC = Energy Regulatory Commission, JCPC = Joint Congressional Power Commission, Meralco = Manila Electric Company, NPC = National Power Corporation, PCG = partial credit guarantee, PEMC = Philippine Electricity Market Corporation, PRG = political risk guarantee, PSALM = Power Sector Assets and Liabilities Management Corporation, SPUG = small power utilities Group, TransCo = National Transmission Corporation, USAID = United States Agency for International Development, WESM = wholesale electricity spot market.

DEVELOPMENT POLICY LETTER AND POLICY MATRIX FOR THE PROGRAM CLUSTER

Republic of the Philippines
Department of Finance

Republic of the Philippines
Department of Energy

16 October 2006
RPLM-D0486-DOE 1206

MR. HARUHIKO KURODA
President
Asian Development Bank
ADB Avenue, Ortigas, Pasig City

PHILIPPINES: POWER SECTOR DEVELOPMENT PROGRAM

Dear Mr. President:

The Philippines is among the first developing member countries to implement fundamental power sector restructuring, requiring substantive privatization of generation assets and entering into concession agreement with private parties for operating transmission assets, with the objective of achieving competition at wholesale and retail levels. This is an ambitious and complex task that involves coordinated actions of all stakeholders and requires strong support from development partners.

The blueprint for the power sector restructuring is Republic Act No. 9136, otherwise known as "The Electric Power Industry Reform Act of 2001," also known as "EPIRA" that was passed by Congress in June 2001. The implementing rules and regulations of EPIRA were promulgated in February 2002, duly reviewed and approved by the Joint Congressional Power Commission consistent with Section 77 of EPIRA. The EPIRA enables the unbundling of the power sector into generation, transmission, distribution and supply, and provides the legal framework for sector restructuring and privatization of the National Power Corporation (NPC). Since the promulgation of EPIRA, the following achievements have been made in power sector restructuring:

(i) The Department of Energy (DOE) was reorganized to perform its expanded mandate of supervising the implementation of power sector reforms including power sector planning.
(ii) The NPC's generation and transmission function have been unbundled and separated.
(iii) The National Transmission Corporation (TRANSCO) was created to take over the transmission assets and transmission operations of NPC.
(iv) The Power Sector Assets and Liabilities Management Corporation (PSALM) was created to oversee and manage the privatization of NPC's generation assets, award the concession for TRANSCO's transmission operations, and take over the debt liabilities and non-transmission assets of NPC.
(v) An independent Energy Regulatory Commission (ERC) was created and has set rules for competitive markets and the performance-based regulation for transmission and distribution businesses.

(vi) The Government assumed about P200 billion of NPC's debt liabilities.
(vii) The Philippine Electricity Market Corporation (PEMC) was created and the Wholesale Electricity Spot Market (WESM) has started commercial operations in Luzon in June 2006.
(viii) Private sector participation in rural/missionary areas have been introduced and aggressively pursued and implemented, which led to entry of new players in the power sector.
(ix) Inter-grid, intra-grid cross subsidies have been removed, while inter-class cross subsidies are being removed.
(x) A Magna Carta for residential consumers has been promulgated by ERC and other customer awareness and empowerment programs have been initiated by the DOE.

The power sector restructuring has reached a critical juncture. The legal, regulatory and institutional framework for privatization and competition is largely in place. However, it is recognized that the privatization program will take longer time than expected to complete, and as such the stranded contract cost and stranded debt of the NPC are substantially higher that the initial estimates. For the key objectives of the restructuring to succeed, further actions are needed in the following areas (i) restoring and sustaining power sector financial viability; (ii) reducing risks and ensuring a smooth transition to competitive energy markets; (iii) enhancing efficiency and private sector investment in the sector; and (iv) ensuring security of supply. The Government needs ADB's support in these areas to sustain the progress of the power sector restructuring and ensure the success of the privatization.

The Government is fully committed to the restructuring and privatization of the power sector and is determined to implement the actions outlined in the Policy Matrix attached hereto within the agreed timetable. The Government is likewise committed to maintaining an active policy dialog with development partners on the implementation of the agreed actions and the progress of the power sector restructuring to ensure that the objectives of the power sector restructuring are met.

In conclusion, we are convinced that the power sector restructuring as outlined in the EPIRA is a right approach and it will lead to a financially sustainable, efficient, and secure power supply that arrests the drain on the Government's finances caused by the power sector, thus freeing up resources for the social sectors, and minimizes the risk of power shortages that would impede economic growth.

Very truly yours,

MARGARITO TEVES
Secretary

Very truly yours,

RAPHAEL P.M. LOTILLA
Secretary

DEVELOPMENT POLICY LETTER AND POLICY MATRIX FOR THE PROGRAM CLUSTER

Table A2: Policy Matrix for the Program Cluster

			Subprogram 1			**Subprogram 2** [a]	
Area	**Action**	**Responsible Agency**	**Target Date**	**Prior to Board Consideration**	**During Subprogram 1**	**Prior to Subprogram 2**	**During Subprogram 2**
A. Financial viability of the power sector	1. Start charging the generation tariff adjustment authorized by ERC.	NPC	Completed	X			
	2. Timely adjustment of regulated generation prices through application of a formulaic approach for incremental fuel and power purchase costs.	ERC and NPC			X		X
	3. Continue to implement measures to lower NPC and TransCo's operating costs; prioritize NPC's and TransCo's capital expenditure requirements for the period prior to privatization consistent with revised demand forecasts and having regard to demand-side and distributed generation potential.	PSALM, NPC, and TransCo			X		X
	4. DOF to coordinate with (a) DOE for the issuance of a detailed action plan on the following: (i) by PSALM and NPC, the use of privatization proceeds to reduce borrowings; (ii) by PSALM and NPC, application for universal charges for stranded costs and debt; (iii) by PSALM and NPC liability management and (iv) by PSALM and NPC reimbursement of non-power costs for multi-purpose projects. (b) DBM in providing the assistance to PSALM, when necessary and in accordance with budgetary process, to (i) help PSALM achieve DSCR[b] of at least 1.0 starting in 2009.	DOF, DOE, NPC, PSALM, and DBM	Completed	X			

			Subprogram 1			Subprogram 2 [a]	
Area	**Action**	**Responsible Agency**	**Target Date**	**Prior to Board Consideration**	**During Subprogram 1**	**Prior to Subprogram 2**	**During Subprogram 2**
	5. Complete the transfer of about P200 billion of NPC debts to the Government.	DOF, PSALM, and NPC	Completed	X			
	6. Issue guidelines for universal charge (UC) for stranded contract cost and stranded debt, respectively.	ERC	Dec 2006		X		
	7. (a) Filing the universal charges for stranded debt and costs.	PSALM and NPC	Jun 2007		X		
	(b) Start charging the universal charges authorized by ERC.	PSALM and NPC	Jan 2008			X	
	8. Issue guidelines for introduction of TOU tariffs at the wholesale level.	ERC	Completed	X			
	9. Approval to remove inter-grid and intra-grid cross-subsidies and inter-class cross-subsidies in electricity tariffs.	ERC	Completed	X			
	10. Issue guidelines, for all regulated market participants, a uniform system of accounts that is internationally accepted for private DUs, and enforce the use thereof.	ERC	Dec 2007		X		
	11. DOE to coordinate and issue a detailed action plan to implement clear restructuring steps where ECs are not financially viable, including such actions as mandatory NEA or NPC transitional management / participation in Board of ECs, as appropriate, and investment management contracts (IMCs), for ECs that have to rely on wholesale supplier of last resort and fail to cure the problems within a specified period.	DOE, NEA, and PSALM	Completed	X			

			Subprogram 1			Subprogram 2 [a]	
Area	**Action**	**Responsible Agency**	**Target Date**	**Prior to Board Consideration**	**During Subprogram 1**	**Prior to Subprogram 2**	**During Subprogram 2**
B. Regulatory framework and performance	1. Adopt and implement a rolling strategic plan for ERC with respect to institutional and capacity improvement, efficiency and technical competencies, regulatory achievements and indicators for public confidence levels.	ERC	Completed	X			
	2. Issue Rules of Practice and Procedure to ensure efficient hearing and investigative procedures that have clear time periods.	ERC	Completed	X			
	3. For ERC's budget	ERC and DBM					
	(a) Timely provision and release of regular budget based on applicable law in line with budgetary process and regulations.		Completed	X			
	(b) ERC to use fees collected in excess of their revenue target for the year in accordance with budgetary process and regulations.		Dec 2008			X	
	4. Request and obtain a general deputization consent for ERC to represent itself at all levels of judicial proceedings.	ERC	Completed	X			

			Subprogram 1			Subprogram 2 [a]	
Area	**Action**	**Responsible Agency**	**Target Date**	**Prior to Board Consideration**	**During Subprogram 1**	**Prior to Subprogram 2**	**During Subprogram 2**
C. Market restructuring toward competition	1. Design mechanisms that facilitate and provide incentives to demand-side participation in WESM and provide technical support including training to WESM participants to assist their preparation for the WESM operations.	DOE and PEMC	Dec 2007		X		
	2. Put in place a contingency plan to ensure reliable power supply in line with Sec. 71 of EPIRA without disrupting the development of a competitive energy market.	DOE			X		X
	3. Issue guidelines on performance-based regulation for TransCo and selected DUs to allow recovery of their just and reasonable costs and to share efficiency improvements with consumers.	ERC	Completed	X			
	4. Issue guidelines on recoverable system loss methodology for DUs to improve energy efficiency.	ERC	Completed	X			
	5. Issue guidelines on price determination methodology for WESM to ensure transparency and efficiency in competition with transparent price cap set and known in advance to limit extraordinary volatility.	ERC	Completed	X			
	6. Issue competition rules and complaint procedure	ERC	Completed	X			
	7. Issue guidelines to enable small and/or weak suppliers to purchase energy through wholesale aggregators.	ERC	Completed	X			
	8. Start WESM commercial operations in Luzon.	PEMC	Completed	X			
	9. Start customer choice program with time-of-use tariff for consumers with average peak demands of 1MW or more in ERC approved franchise area.	NPC and ERC	Jul 2007		X		
	10. Issues guidelines on a streamlined approach to regulation of ECs to reduce the number of individual price reviews required and take specific steps to reduce the time taken for reviews of ECs prices.	DOE, PEMC, and ERC	Dec 2007		X		

Area	Action	Responsible Agency	Target Date	Subprogram 1: Prior to Board Consideration	Subprogram 1: During Subprogram 1	Subprogram 2[a]: Prior to Subprogram 2	Subprogram 2[a]: During Subprogram 2
	11. Expand WESM operations in Visayas, if warranted by the initial experience in Luzon and the power supply situation.	DOE and PEMC	Dec 2007		X		
	12. Expand WESM operations in Mindanao, if warranted by the initial experience in Luzon and the power supply situation.	DOE and PEMC	Dec 2009				X
	13. Appoint an independent operator for WESM.	DOE and PEMC	Dec 2008			X	
	14. Issue guidelines on open access for distribution to allow retail competition to start.	ERC	Dec 2008			X	
D. Private participation in power generation and trans-mission	1. Timely updating of power sector development plan to ensure consistency and adequacy of information needed for investment decisions in terms of sector planning, demand forecasting, business opportunities.	DOE			X		X
	2. Engagement of consultant to study on the option of having a trading advisor to advise on trading strategies as a transition to establishment of the IPP administrator and privatization of NPC generation.	PSALM and NPC	Dec 2007		X		
	3. Appoint IPP administrators.	PSALM and NPC	Dec 2008			X	
	4. Call for bids for the TransCo concession.	PSALM	Completed	X			
	5. Issue notice of award for the TransCo concession contract.	PSALM	Dec 2008			X	
	6. Complete the process of negotiation and conclusion of transition supply contracts between NPC and the DUs, which account for majority share of country-wide sales.	PSALM and NPC	Dec 2007		X		
	7. Issue resolution to require DUs to negotiate bilateral supply contracts with power generators.	ERC	Completed	X			

			Subprogram 1			Subprogram 2 [a]	
Area	**Action**	**Responsible Agency**	**Target Date**	**Prior to Board Consideration**	**During Subprogram 1**	**Prior to Subprogram 2**	**During Subprogram 2**
	8. Issue resolution to impose a premium on sale prices for those DUs without transition supply contract and relying on the default wholesale supplier arrangements	ERC	Completed	X			
	9. Call for bids for the sale of eligible NPC's generation capacity.	PSALM	Dec 2007		X		
	10. Issue notice of award for the sale of a significant part of generating assets.	PSALM	Dec 2008			X	
E. Consumer welfare and protection	1. Conduct public information campaign on the rationale for power sector restructuring, privatization and regulatory framework.	DOE and ERC			X		X
	2. Promulgate a bill of rights of residential electricity consumers.	ERC	Completed	X			
	3. Issue guidelines on supplier of last resort in case of retail electricity supplier's suspension from WESM and appoint a default temporary wholesale supplier of last resort to supply to DUs and ECs that are unable to participate in the WESM and the contract market.	ERC	Completed	X			
	4. Publish complaint procedure, establish consumer complaint desk at ERC and consumer welfare desks at all electric utilities; and conduct training to all consumer welfare desk officers.	ERC and DUs	Completed	X			
	5. Establish periodic review and report on the impacts of the reforms on consumers (in terms of access and quality of supply as well as price) and the effectiveness of safety nets and consumer protection.	DOE and ERC			X		X

ADB = Asian Development Bank; DBM = Department of Budget and Management; DOE = Department of Energy; DOF = Department of Finance; DSCR = debt service coverage ratio; DU = distribution utility; ERC = Energy Regulatory Commission; EPIRA = Electric Power Industry Reform Act; IPP = independent power producer; NEA = National Electrification Administration; NPC = National Power Corporation; TransCo = National Transmission Corporation; PEMC = Philippine Electric Market Corporation; PSALM = Power Sector Assets and Liabilities Management Corporation; RORB = return on rate base; TOU = time of use; WESM = wholesale electricity spot market.

[a] These conditions are indicative of the general direction subprogram 2 might take. They need to be reviewed and, if necessary, modified or deleted based on the results of subprogram 1.

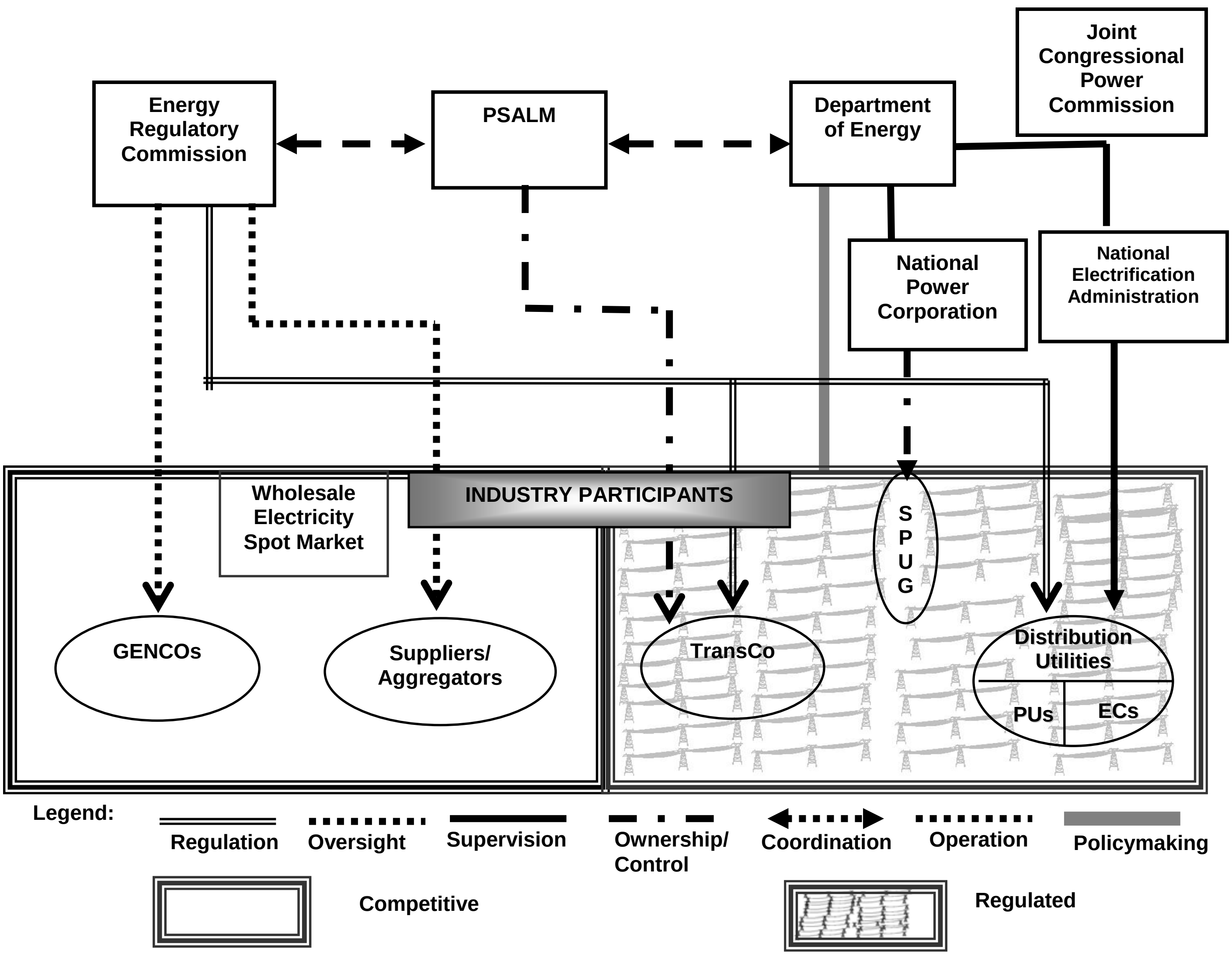
[b] DSCR is defined as internally generated cash (including privatization proceeds and universal charges) divided by debt service.

Sources: Department of Finance, Department of Energy, and Asian Development Bank.

POWER SECTOR INSTITUTIONAL SETUP AND ROAD MAP

A. Restructured Power Sector

Figure A3: Restructured Power Sector in the Philippines



EC = electric cooperatives, GENCO = Generation Company, PSALM = Power Sector Assets and Liabilities Management Corporation, PU = privately owned distribution utilities, SPUG = Small Power Utilities Group, TransCo = National Transmission Corporation.
Source: PSALM.

1. Department of Energy (DOE)

1. DOE is the agency responsible for formulation of Government policy for the country's energy sector in general, and the electric power industry in particular. As part of its streamlining efforts to address the critical issues facing the power sector, DOE established the Electric Power Industry Management Bureau (EPIMB) to take responsibility for matters relating to the power industry. One of EPIMB's functions is the preparation of an annual power development plan. However, with the extent of power sector deregulation envisaged under Electric Power Industry Reform Act (EPIRA), the influence of the plan on the development of the power sector might be limited to the provision of a guide. EPIMB is directly involved in other activities, including (i) establishment of the wholesale electricity spot market (WESM) in collaboration with other industry participants, and particularly the appointment of an independent market operator to manage the bulk power trade market; (ii) promotion of rural electrification, and coordination of the Government's expanded rural electrification program that aims to provide electricity to all *barangays*[1] in the country; (iii) administration of policies promoting the use of electricity generated from renewable sources; and (iv) administration of the host community fund.

2. Power Sector Assets and Liabilities Management Corporation (PSALM)

2. PSALM has been established as a Government corporation to implement EPIRA's restructuring and privatization mandate. To this end, PSALM has been (i) mobilizing resources to cover National Power Corporation (NPC)'s stranded debt and stranded contract costs, which arise due to the underutilization of certain generation assets as a result of a slower-than-expected growth of electricity demand in the recent past; (ii) reviewing and renegotiating independent power producer (IPP) contracts to obtain more favorable terms for users of IPP-generated electricity; (iii) developing and implementing a privatization plan for the sale of NPC's generation assets and other properties, and the transfer of NPC's transmission operations to a private sector concessionaire; (iv) developing a plan for the assumption of relevant National Electrification Administration (NEA) long-term loan liabilities following the condonation of electric cooperative (EC) loans in accordance with EPIRA (Section 60); and (v) negotiating transition supply contracts (TSC) with distribution utilities (DUs) for the sale of electricity from NPC-owned power generation sources.

3. PSALM's major sources of finance include (i) proceeds from the sale of NPC's generation facilities, as well as generation revenue until such a sale; (ii) revenue from the transmission grid concessionaire; (iii) Government's partial assumption of debt liabilities;[2] and (iv) revenue from the stranded debt and stranded contract cost portion of the common (universal) charge levied on all electricity end users in accordance with EPIRA (Section 34[a]).[3]

3. Wholesale Electricity Spot Market

4. DOE established WESM in accordance with Section 30 of EPIRA. Under WESM, a day will be divided into 24 one-hour trading periods, and generators will bid competitively for a position on the electricity dispatch generation schedule for each trading period. In any trading period, generators will be dispatched in the order of their bid prices, with the market-clearing

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[1] A unit of administration consisting of 50–100 families under a headman.

[2] Section 32 of EPIRA calls for the Government to assume directly up to ₱200 billion ($3.9 billion) of NPC's financial obligations. The Government had considered increasing the debt assumption to ₱500 billion, but eventually only the ₱200 billion required by EPIRA was assumed.

[3] Other revenue sources include proceeds from the sale of subtransmission assets to DUs, and generation revenue from the Agus and Pulangui hydropower stations in Mindanao, which will not be sold. These revenues are unlikely to materially affect PSALM's financial position.

price being set by the highest bidder to be dispatched.[4] This model is economically efficient because competition for dispatch should ensure that at times of low electricity demand higher-priced generators are not dispatched. Thus, the price paid by customers purchasing electricity from the market is reduced. As demand increases, prices should rise to the extent that it becomes economical for investors to build new generation to enter the market. Since new generation faces no constraints on entry, economic theory would suggest that only relatively efficient new generation will be constructed. A relatively less efficient new entrant would risk being displaced by a more efficient entrant and, therefore, not being dispatched.

5. WESM intends that all generation, except small plants embedded in distribution systems, be dispatched through the market based on bid price.[5] However, a financial hedge market will operate in parallel with the WESM. Financial hedges are bilateral contracts between electricity generators and purchasers for a fixed price and quantity of electricity in a given trading period, and require the contracting parties to pay one another the difference between the market clearing price and the hedged contract price for the quantity of electricity contracted.[6] Hedge contracts play an important role in the operation of the market, giving price certainty to purchasers and providing generators with a secure and predictable revenue stream. In a mature market, hedge contract prices will be similar to the expected market-clearing price. However, consistent with Section 45(c) of EPIRA, no DU is allowed to hedge more than 90% of its electricity requirements for the first 5 years of market operation.

4. Small Power Utilities Group (SPUG)

6. SPUG is a separate division of NPC, which supplies electricity to ECs and local governments operating distribution networks that are not connected to any of the three main grids. Its power plants range in size up to 14 megawatt (MW). The large power barges use bunker C heavy fuel oil, while the smaller plants generally are fueled by light fuel oil.[7] SPUG also owns and operates off-grid transmission systems in Palawan and Mindoro.[8] In accordance with Section 47 of EPIRA, SPUG's assets are exempt from the privatization process. Nevertheless, the DOE and NPC initiated a program aimed at luring private sector players into the business of missionary electrification. Through a DOE circular, which became effective on 12 February 2004,[9] NPC-SPUG areas are to be grouped into waves based on the suitability of the areas for supply by new private providers (NPP). The first wave groupings, consisting of 14 areas, were selected based on their respective peak demand levels. Through different options, six areas have begun their respective processes for the entry of NPPs. Section 70 of EPIRA requires that missionary electrification be funded from sales of electricity in missionary areas

[4] This is strictly true only if the generators were supplying electricity to one point in the transmission grid. In practice, minimizing losses, ensuring that prudent power transfer capacities of transmission grid elements are not exceeded, and maintaining adequate network security are necessary. The location of generation on the grid, therefore, is an important consideration. As a result, a more complicated dispatch model is used, and each grid node has different clearing prices. This might result in some low priced generation not being dispatched, and being displaced by more expensive generation at another node. However, it does not alter the fundamental economic concepts on which the market design is based.

[5] Some generation, based on wind power for example, cannot bid into the market since generation output will vary continuously with prime mover input. Such generators are necessarily "price takers", and in any trading period will be paid the market-clearing price for the node to which they are connected.

[6] Hedge contracts also are known as "contracts for differences" because, if the market-clearing price is above the hedge price, the generator will pay the difference to the purchaser. The reverse will occur when the hedge price is greater than the market-clearing price. In this way, the physical operation of the system or the market-clearing price is not distorted by the bilateral contracts.

[7] The exception is Balongbong in Catanduanes province, which is a 1.8 MW hydropower station.

[8] Ongoing projects are in Masbate, Marinduque, and Catanduanes.

[9] DOE Circular No. 2004-01-001.

and from the missionary electrification component of the universal charge. In accordance with this provision, NPPs taking over from SPUG in privatized supply areas also will be eligible for subsidy funding from the universal charge.

5. Electricity Cooperatives

7. While EPIRA did not materially alter the franchise arrangements[10] or structure of the distribution sector, it introduced some changes that will impact the way these utilities operate. The more significant changes include the (i) structural and functional unbundling of distribution business activities and rates, which means that generation, transmission, distribution, and supply costs will be shown separately on customer bills, and generation and transmission costs will be treated as a pass-through; (ii) introduction of open access and retail competition on distribution wires;[11] (iii) provision of restrictions on the sourcing of demand requirements from associated firms (not more than 50%) and from bilateral contracts (DUs must purchase at least 10% of their requirements from WESM for the first 5 years after its establishment);[12] (iv) condonation of the loans of ECs and the assumption of these loans by PSALM in exchange for a reduction in the rates of the ECs by an amount commensurate to the resulting savings; and (v) removal of cross subsidiaries within a grid, and between grids and/or classes of customers, within 3 years of the establishment of a universal charge by Energy Regulatory Commission (ERC).

8. ECs are customer-owned, nonprofit organizations without a capital structure. The financial and operational position of the 119 ECs vary. In 2005, 77 ECs generated insufficient revenues to cover their operating and debt service costs, while 48 were unable to cover even their operating costs. These figures are higher by 24% and 85%, respectively, than in 2004. In addition, 63 ECs reported power losses greater than 14%.[13] Of these, 16 reported losses higher than 20%. Seventeen ECs were in arrears to NEA on loan repayments, and 42 had overdue accounts with NPC for purchased power as of 30 June 2006.[14] The NEA balance sheet shows ₱2.6 billion in outstanding EC loans as of 31 December 2004, down from ₱3.7 billion as of 31 December 2003 and from ₱15.4 billion as of 31 December 2002.[15] The movement is primarily due to PSALM's assumption, in accordance with EPIRA, of the ECs' loan obligations to NEA as of June 2001. In 2003 and 2004, PSALM assumed almost ₱18 billion of EC loans and made payments of around ₱3.6 billion from 2003 to 2005. NEA uses a categorization system to measure the performance of ECs. The present system revised in 2005 ranks ECs on a scale from A+ to E based on (i) loan repayment history, (ii) system loss levels, (iii) revenue collection efficiency, (iv) level of power purchase payment arrears, (v) level of non-power operating costs, and (vi) barangay energization[16]. Fifty-eight and 13 ECs were rated A+ and A, respectively, while nine and 10 ECs were rated D and E, respectively, based on these categories.

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[10] Before the passage of EPIRA, the power to award distribution franchises was vested in the National Electrification Commission operating under NEA. Under Section 27 of the EPIRA, this power is now vested in Congress provided that existing franchises must continue for their full term and that the power to renew and cancel the franchises of ECs will remain with NEA for 5 years after the effectiveness of EPIRA.

[11] DUs have an exclusive right to supply electricity to customers connected to their network. Under open access and retail competition, electricity supply will become competitive and DUs must let competing electricity suppliers transport electricity over their network.

[12] Many of the smaller DUs probably will not be able to meet the prudential requirements to allow them to trade in the market. However, Section 30 of EPIRA provides that NEA may, "in exchange for adequate security and a guarantee fee", act as a guarantor for purchases of electricity in WESM by any EC or small DU.

[13] In accordance with RA No. 7832, 1994 (the Anti-Pilferage Act), ECs are subject to a loss cap of 14%. The cost of losses above the cap is ignored when setting the rate, and cannot be recovered from customers.

[14] Excludes 8 ECs whose overdue accounts with NPC are being disputed.

[15] Additional lending in 2005 has since increased outstanding EC loans to NEA to ₱2.9 billion.

[16] The inclusion of power reliability as an additional criterion for the ranking of ECs was deferred for 2006.

9. As with NPC, NEA had experienced severe financial stress in recent years. In 2003, it recorded a net operating loss of ₱518 million, up from ₱122 million in 2002. NEA's 2003 balance sheet reported a deficit of ₱7 billion, with current assets of only ₱2.7 billion (including ₱1.3 billion of matured loan receivables from ECs), compared with current liabilities of ₱13.1 billion. The balance sheet also showed some ₱5.5 billion in long-term loans from the Government. Some of these loan advances were made to ensure that NEA does not default on repayment of its foreign debt, which amounted to ₱3.1 billion as of 31 December 2003. Loan condonation will mean that PSALM, rather than the ECs will be responsible for making most outstanding loan principal payments. However, interest payments for these loans will now be to the sole account of NEA. In early 2004, NEA was reorganized and staffing levels rationalized to address the financial problems and more effectively carry out its revised mandate under EPIRA. The reduction in personnel expenses and the restructuring of some EC loans resulted in a 2004 net operating income of ₱200 million, a marked improvement over the previous year's performance. Mostly due to higher Government subsidy, to cover NEA's interest expenses and a decline in subsidies granted to ECs during the year, NEA reported a slightly positive bottom line in 2005.

10. Manila Electric Company (Meralco) is the largest DU in the Philippines. As the recipient of an Asian Development Bank (ADB) loan,[17] its performance is of particular interest. During the mid-1990s, immediately following the approval of ADB's loan, Meralco's financial performance was satisfactory. However, Meralco's financial position has deteriorated in recent years to the extent that it has failed to meet ADB's required 8% rate on return base (RORB) since 1997. In fact, Meralco also failed to meet its covenanted self-financing ratio of 20% in 2002. Meralco posted a before-tax loss of ₱29.6 billion in 2002, before recovering slightly in 2003.[18] However, an adverse Court of Appeals ruling on Meralco's unbundling case filed with the ERC required the company to set aside provisions for probable losses of almost ₱10 billion in 2004, pushing Meralco back into the red for the year. Additional provisioning of P5.9 billion in 2005 meant that Meralco reported another net loss for that year. A major reason for this deteriorating financial performance has been the lack of increases in Meralco's distribution rate between 1994 and 2003. Meralco's new tariff application under the performance based regulation is being reviewed by ERC.

6. Energy Regulatory Commission

11. EPIRA established ERC as the industry's independent regulator, succeeding the Energy Regulatory Board. New functions and responsibilities have been introduced by the law, including (i) developing and enforcing technical standards for transmission and distribution; (ii) enforcing the WESM rules; (iii) licensing generators and suppliers of electricity;[19] (iii) setting rates for non-contestable sectors of the industry;[20] (iv) determining and approving the level of the universal charge; (v) preventing abuse of market power, and anticompetitive or discriminatory behavior, by industry participants; and (vi) resolving disputes between industry participants, or between industry participants and customers.

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[17] ADB.1992. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Manila Electric Company in the Republic of the Philippines for the Meralco Distribution Program*. Manila.
[18] This includes the extraordinary loss realized because of the Supreme Court refund decision.
[19] The purpose of a license is to ensure adherence to standards rather than to limit the number of participants. Consistent with this philosophy, licenses in the generation sector are called certificates of compliance in EPIRA.
[20] Rates for generation and supply currently are regulated. Generation rates will cease to be regulated after the commencement of WESM. Upon the implementation of retail competition, the retail supply rate to contestable customers will no longer be regulated.

12. Following the passage of EPIRA, all utilities have been required to file a petition for the approval of unbundled rates, while ECs also have been required to file a petition for rate reductions due to the condonation of NEA loans. In the unbundled rate, generation, transmission, and universal charges are itemized separately on a customer bill. Any changes in the unbundled components of generation, transmission, and universal charges are treated as a pass through, although ERC approval is required before these changes can be reflected in customer bills. Loan condonation applications from ECs are being treated separately. Loan condonation applies only to the distribution component of the unbundled rate. The petitions were filed in accordance with Section 60 of EPIRA, which requires that a reduction of the rates of ECs commensurate with the savings due to loan condonation. The processing of loan condonation and rate unbundling petitions is now substantially complete.

13. ERC has examined rate unbundling applications using 2000 as the historic test year. While rate unbundling is technically revenue neutral, the process used effectively has involved a review of the existing costs. As a result, distribution rates have been revised.[21] ERC first replaced the previous automatic cost adjustment formulae with a generation rate adjustment mechanism (GRAM) and an incremental currency rate adjustment (ICERA). However, ERC now has introduced the automatic adjustment of generation rates and system loss rates (AGRA) to replace GRAM. Under GRAM and ICERA, adjustments needed to be pre-approved by ERC before they could be included in customer bills. Under AGRA, the process has been changed to allow adjustments to be applied by the regulated entities, subject to retrospective approval by ERC.

14. With technical assistance (TA) from ADB,[22] the ERC promulgated the performance-based rate (PBR) methodology for the transmission sector on 29 May 2003. The PBR regime departs from the traditional RORB methodology, which has been used in the Philippines for the past 80 years. The methodology provides that a revenue cap for each year of a 5-year regulatory period will be set before the beginning of the period,[23] and that under normal circumstances these caps will not be changed.[24] The revenue caps will be based on a series of building blocks that include (i) operating and maintenance expenditure; (ii) depreciation; (iii) a return on invested capital, including system assets valued using the depreciated optimized replacement cost method; (iv) a return on capital expenditure undertaken during the regulatory period; and (v) income and other taxes. The contribution of each building block to the revenue requirement in a particular year is based on a forecast of the business' expenditure requirements over the regulatory period. The scheme includes an efficiency incentive that rewards or penalizes an operator depending on the difference between its achieved level of network performance and preset performance targets. It also has an efficiency carryover mechanism, whereby the benefits achieved by reducing costs below forecast levels can be retained by the regulated entity for a 5-year period.

15. On 5 January 2005, the ERC issued guidelines for a new methodology for setting wheeling rates for private DUs. This is a PBR methodology that is similar in most respects to the PBR methodology to be used for the transmission sector. The key difference for the distribution sector is that the methodology will be used to determine a maximum average price,[25] rather

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[21] Some utilities have experienced rate reductions as a result of their unbundling applications.
[22] ADB. 2001. *Technical Assistance to the Republic of the Philippines for a Competition Policy for the Electricity Sector*. Manila.
[23] As envisaged, a regulatory period normally will last 5 years.
[24] The methodology has provisions for a review of the revenue caps in situations that are outside the control of the regulated entity and that would have a significant impact on the profitability of the regulated entity.
[25] The average price is determined by dividing the total amount billed for regulated services in a regulatory year by total energy delivered in that year.

than a maximum allowed revenue as in the transmission business. Hence, under this rate-setting mechanism, the revenue received by DUs can rise and fall with the volume of electricity delivered, whereas the maximum allowed revenue determined for National Transmission Corporation is independent of electricity volumes. A less significant difference is that the regulatory period for DUs is only 4 years.

Table A3: Road Map for Power Sector Restructuring

	Recent Past (1998–2006)	**PSDP Subprogram 1** (2007–2008)	**PSDP Subprogram 2** (2009–2010)	**Longer Term** (2011 and beyond)
Key issues and Constraints	• NPC major contributor to consolidated public sector deficit with PSALM long term debt of about $7 billion (2005) and, as a legacy of the power crisis in the 1990s, IPP lease obligations of about $12 billion (2005) • High retail electricity tariff of about $0.13/kWh • Capacity oversupply (installed capacity of 12,000 MW vs peak demand of 6,500 MW in Luzon in 2005) • Slow pace of privatization of NPC assets. For generation, 70% (about 4,000 MW) was scheduled for sale by June 2004 but less than 3% was privatized. Two failed biddings for TransCo • Major issue for generation assets sales is lack of bilateral supply contracts. • Financial health of major power offtakers (Meralco and other distribution utilities)	• Need to reduce PSALM debt and IPP cost burden • Need for investment in new capacity to meet the demand beyond 2011 • Need to improve confidence in regulatory performance • Need to maintain stable WESM operations • Need to introduce universal charges for stranded debt and cost	• Need to complete privatization of all eligible NPC power generating plants and selection of the TransCo concessionaire	• Need to have light-handed regulation on the power sector • Need to ensure fair market practices and reliability of electricity supply

	Recent Past (1998–2006)	**PSDP Subprogram 1** (2007–2008)	**PSDP Subprogram 2** (2009–2010)	**Longer Term** (2011 and beyond)
ADB-Led Assistance	ADB • Program loan of $300 million (1998) • PCG $500 million (2002) for PSALM's bond issue • Project loan $40 million for establishment of WESM (2002) • TA for ERC and PSALM (2004) JBIC • Program loan $300 million (1998) • Project loan $40 million (2003) OPIC • Guarantee for PSALM's $200 million bond issue	ADB • Policy-based loan of $450 million (2006) World Bank • Development Program Loan of $250 million with a power sector component • TA for ERC, PSALM, and DOE (June 2006) Other bilateral financiers • To be determined	ADB (to be determined) • PCG for PSALM debt management • PRG for TransCo's concession • PRG for GENCO's privatization World Bank (to be determined) • PRG for TransCo's concession	Not anticipated
Reform Progress	• EPIRA promulgated (June 2001) • Integrated generation and transmission unbundled (2001) • Cross-subsidies removed (2001–2006) • ERC established as independent regulator (June 2001) • Wholesale competition started (June 2006) • ADB omnibus loan agreement amendment signed (March 2006) to allow PSALM to sell NPC eligible assets • Options developed to break deadlock on slow privatization of generation assets, including (i) Meralco's voluntary offer for retail competition to allow industrial consumers to sign bilateral contracts with power generators, (ii) ERC's requirement for all DUs to sign bilateral contracts; and (iii) start of WESM commercial operations to allow trading of uncontracted capacities	• Confidence on regulatory performance established • WESM viability proven • Initial retail competition started in Meralco's franchise area with signing of bilateral supply contracts at the retail level with large consumers • IPP administrators selected for NPC-contracted IPP plants to improve market share of such plant through the WESM	• Financial close reached (franchise granted by Congress) for TransCo concessionaire • Eligible power generating plants privatized • Retail competition started nationwide • Credit worthiness of ECs strengthened	• Sustainable, efficient, reliable and affordable power supply • Consumer rights protected

	Recent Past (1998–2006)	PSDP Subprogram 1 (2007–2008)	PSDP Subprogram 2 (2009–2010)	Longer Term (2011 and beyond)
Financial impact	• As stipulated under EPIRA, Government absorption of $3.6 billion (₱200 billion) of PSALM's financial obligations (31 December 2004) • NPC generation tariff increase of ₱1.0353/kWh (2005) approved by ERC • NPC financial loss reduced from 2% of GDP in 2004 to breakeven in 2005 • WESM determined wholesale electricity price for WESM participating electricity offtakers	• Private investment for new generation capacity in Luzon to meet the electricity demand beyond 2010	• TransCo concession awarded (concession fee to be paid over a period of up to 25 years) • NPC power generating plant privatization proceeds (be paid over a period of up to 7 years for big plants) • PSALM stranded debt and cost covered by relevant universal charge component	• PSALM's DSCR greater than 1.0 • Government resources freed up for social sectors

DSCR = debt coverage service ratio, EC = electric cooperative, EPIRA = Electric Power Industry Reform Act, ERC = Energy Regulatory Commission, GDP = gross domestic product, GENCO = generation company, IPP = independent power producer, JBIC = Japan Bank for International Cooperation, kWh = kilowatt-hour, MW = megawatt, Meralco = Manila Electric Company, NPC = National Power Corporation, OPIC = US Overseas Private Investment Corporation, PCG = partial credit guarantee, PRG = political risk guarantee, PSALM = Power Sector Asset and Liabilities Management Corporation, PSDP = power sector development program, TA = technical assistance, TransCo = National Transmission Corporation, WESM = wholesale electricity spot market.
Source: Asian Development Bank analysis.

PROJECTED ELECTRICITY SUPPLY AND DEMAND

1. The tables in this appendix show the projected electricity demand with installed generation capacity for each of the three main grids, i.e., Luzon, Visayas, and Mindanao for 2005–2014. Three scenarios are considered for the demands beyond 2005: (i) Department of Energy (DOE) Reference Plan (Historical), where the growth from 2005 increases at the rate assumed in the 2004 Power Development Plan; (ii) Reference Case based on the DOE low forecast where growth rate from 2005 is assumed to increase at 4.3% for Luzon, 6.0% in Visayas, and 6.4% in Mindanao; (iii) High Case, based on National Power Corporation's forecast for Luzon, National Transmission Corporation's forecast for Visayas and Mindanao.

Table A4.1: Electricity Supply-Demand Balance, Luzon

	Forecast Demand (MW)				Capacity Margin (%)		
Year	Reference Plan (DOE Historical) (6.6%)*	Reference Case or Low (DOE) (4.3%)	High Demand Case (NPC) (4.5%)	Installed Capacity (MW)	Reference Plan (DOE Historical)	Reference Case (DOE)	High Demand Case (NPC)
2005	7,045	6,443	6,443	12,128	72	88	88
2006	7,493	6,728	6,768	12,128	62	80	79
2007	7,977	6,981	7,070	12,128	52	74	72
2008	8,497	7,252	7,386	12,168	43	68	65
2009	9,057	7,552	7,715	12,168	34	61	58
2010	9,665	7,878	8,059	12,218	26	55	52
2011	10,310	8,225	8,419	12,018	17	46	43
2012	11,057	8,596	8,795	12,468	13	45	42
2013	11,854	8,990	9,187	13,068	10	45	42
2014	12,509	9,397	9,597	13,368	7	42	39

DOE = Department of Energy, MW = megawatt, NPC = National Power Corporation.
Source: Distribution Development Program of the Department of Energy.

Table A4.2: Electricity Supply-Demand Balance, Visayas

	Forecast Demand (MW)				Capacity Margin (%)		
Year	Reference Plan (DOE Historical) (5.8%)	Reference Case Low (DOE) (5.99%)	High Demand Case (TransCo) (6.03%)	Installed Capacity (MW)	Reference Plan (DOE Historical)	Reference Case (DOE)	High Demand Case (TransCo)
2005	1,113	1,096	1,090	1,793	61	64	65
2006	1,170	1,154	1,153	1,793	53	55	56
2007	1,238	1,214	1,236	1,817	47	50	47
2008	1,308	1,289	1,328	1,817	39	41	37
2009	1,383	1,364	1,401	2,037	47	49	45
2010	1,463	1,448	1,479	2,037	39	41	38
2011	1,550	1,536	1,562	2,187	41	42	40
2012	1,644	1,632	1,650	2,287	39	40	39
2013	1,742	1,737	1,745	2,437	40	40	40
2014	1,849	1,850	1,846	2,587	40	40	40

DOE = Department of Energy, MW = megawatt, NPC = National Power Corporation,
TransCo = National Transmission Corporation.
Source: Distribution Development Program of the Department of Energy.

Table A4.3: Electricity Supply-Demand Balance, Mindanao

Year	Forecast Demand (MW)			Installed Capacity (MW)	Capacity Margin (%)		
	Reference Plan (DOE Historical) (5,7%)	Reference Case or Low (DOE) (6.4%)	High Demand Case (TransCo) (6.7%)		Reference Plan (DOE Historical)	Reference Case (DOE)	High Demand Case (TransCo)
2005	1,371	1,211	1,240	1698	24	40	37
2006	1,458	1,293	1,319	1803	24	39	37
2007	1,535	1,363	1,408	1908	24	40	36
2008	1,615	1,440	1,505	1908	18	33	27
2009	1,697	1,525	1,612	2008	18	32	25
2010	1,784	1,620	1,730	2108	18	30	22
2011	1,883	1,725	1,841	2258	20	31	23
2012	2,001	1,841	1,957	2408	20	31	23
2013	2,124	1,969	2,082	2558	20	30	23
2014	2,256	2,112	2,216	2758	22	31	24

DOE = Department of Energy, NPC = National Power Corporation, MW = megawatt.
Source: Distribution Development Program of the Department of Energy.

ASIAN DEVELOPMENT BANK ASSISTANCE TO THE ENERGY SECTOR

Table A5.1: ADB Lending to the Public and Private Sector

Loan No.	Date	Borrower	Project and Main Component	$ million	Cofinanced by JBIC	Cofinanced by OPEC
77	2 Nov 1971	NPC	Agus VI Expansion and Associated Transmission	23.4		
96	13 Jul 1972	NPC	Agus III (Mindanao) Hydroelectric Station Engineering	21.0		
196	7 Nov 1974	NPC	Agus III (Mindanao) Hydroelectric Station Engineering	1.0		
223	27 May 1975	NPC	Supplementary Loan - Agus II and Agus VI	22.7		
291	21 Dec 1976	NPC	Agus IV (Mindanao) Hydroelectric Station	52.0		
326	09 Dec 1977	NPC	Agus V (Mindanao) Hydroelectric Station	29.0		
421	19 Nov 1979	PNOC	Malangas Coal Development	14.0		
427	27 Nov 1979	NPC	Pulangi IV (Mindanao) Hydroelectric Station	60.7		
482	18 Nov 1980	NPC	Negros & Mindanao Transmission	60.5		
542	17 Nov 1981	NEA	Rural Electrification	87.5		20.0
607	07 Dec 1982	NPC	Power Systems Development	32.8		
666	12 Dec 1983	NPC	Negros–Panay Interconnection	43.8		
726	20 Dec 1984	PNOC	Philippine National Oil Company Energy Loan	85.0		
728	10 Dec 1984	NPC	Second Power System Development	33.0		
823	18 Dec 1986	NPC	Third Power System Development	92.0		
914	27 Oct 1988	NPC	Fourteenth Power (Sector)	120.0		
985	14 Nov 1989	NPC	Fifteenth Power (Sector)	160.0		
991	23 Nov 1989	Hopewell	Navotas 200 MW Gas Turbine[a]	10.0		
1042	13 Oct 1990	NPC	Masinloc Thermal Power Station (Stage I)	200.0	150.0	
1207	10 Dec 1992	Meralco	Meralco Distribution	138.0		
1230	18 May 1993	Hopewell	Pagbilao 700 MW Coal-Fired Power Station[a]	40.0		
1231	18 May 1993	Batangas Power Corp.	Pinamucan 123 MW Oil-Fired Power Station[a]	26.5		
1288	14 Dec 1993	NPC	Power Transmission on Luzon & Mindanao	164.0		
1398	02 Nov 1995	NPC	Northern Luzon Transmission & Generation[b]	244.0	244.0	
1474	30 Sep 1996	NPC	Leyte–Mindanao Interconnection Engineering	5.3		
1590	16 Dec 1997	NPC	Power Transmission Reinforcement	191.4		
1662	16 Dec 1998	DOF	Power Sector Restructuring Program[b]	300.0	300.0	
1984	19 Dec 2002	NPC	Electricity Market and Transmission Development	40.0	45.5	
			Total	**2,297.6**	**739.50**	**20.0**

DOF = Department of Finance, JBIC = Japan Bank for International Cooperation, MERALCO = Manila Electric Company, NEA = National Electrification Administration, NPC = National Power Corporation, OPEC = Organization of the Petroleum Exporting Countries, PNOC = Philippine National Oil Company.
[a] Private sector loan.
[b] In addition to lending, ADB provided two partial credit guarantees in 1995 (within loan 1938) for $148 million, and in 2002 (within Loan 1662) for $500 million.
Source: Asian Development Bank.

Table A5.2: Technical Assistance

No.	Date	Title	$'000
251	24 Oct 1978	Malangas Coal Mine	114
430	17 Nov 1981	Rural Electrification (Dendro Thermal Study)	150
431	17 Nov 1981	Rural Electrification	120
447	25 Feb 1982	Industrial Energy Audits and Energy Conservation	560
450	25 Feb 1982	Second Coal Development	330
496	07 Dec 1982	Cagayan River Hydropower Study	150
611	05 Jul 1984	Electricity Tariff Study	229
651	19 Dec 1984	Private Sector Coal Development Study	350
652	20 Dec 1984	Refinery Sector Rationalization Study	450
733	24 Dec 1985	Geothermal Steam Pricing Study	212
755	17 Jun 1986	Mindanao Power System Development	350
733	15 Oct 1986	Geothermal Steam Pricing Study (Supplementary)	63
834	18 Dec 1986	Luzon Power System Development	260
1015	22 Jul 1988	Development Study of the Visayas Power System	358
1050	27 Oct 1988	Power Sector Cost Structure & Transfer Pricing Study	230
1158	17 May 1989	Mineral Resources Development	75
1169	21 Jun 1989	Power Sector Training	93
1372	11 Sep 1990	Review of NPC's Asset Revaluation	96
1405	30 Oct 1990	Environmental Management of Coal-based Power Generation	636
1966	20 Oct 1993	Long-Term Power System Planning Study	600
2365	20 Jul 1995	Natural Gas Sales Negotiations	100
2435	02 Nov 1995	Formation of Power Transmission Subsidiary	500
2623	30 Jul 1996	Evaluation of Environmental Standards of Selected Industries	400
2653	30 Sep 1996	Leyte–Mindanao Interconnection Engineering	575
3126	16 Dec 1998	Electricity Pricing & Regulatory Practice in a Competitive Environment	600
3127	23 Mar 2000	Consumer Impact Assessment	720
3422	23 Mar 2003	Rural Electrification Institutional Strengthening	750
3516	10 Oct 2000	Rural Electrification	600
3820	19 Dec 2001	Competition Policy for the Electricity Sector	990
4073	19 Dec 2002	Transition to Competitive Electricity Markets	800
4151	18 Jul 2003	Promoting Good Governance in the Restructured Power Sector	800
4174	16 Sep 2003	Rehabilitation of Renewable Energy Projects for Rural Electrification and Livelihood Development	800
4198	18 Oct 2003	Institutional Strengthening for the Development of Natural Gas Industry	800
9042	19 Jan 2004	Renewable Energy and Livelihood Development Project For The Poor In Negros Occidental	1,500
4557	28 Dec 2004	Institutional Strengthening of ERC and Privatization of NPC	1,200
		Total	**16,561**

ERC = Energy Regulatory Commission, NPC = National Power Corporation.
Source: Asian Development Bank.

SUMMARY OF EXTERNAL ASSISTANCE

Multilateral and Bilateral Agencies	Activities
The World Bank Group	The World Bank has not approved new loans to National Power Corporation since 1997. In 2003, the World Bank approved Rural Power Project with a credit line of $20 million to support the rural electrification projects. The International Finance Corporation, as the Government-appointed transaction advisor, assists the Government in implementing private sector participation in areas currently serve by National Power Corporation's Small Power Utilities Group.
Global Environmental Facility (GEF)	In 2003, GEF provided $10 million for the Philippines Electric Cooperative System Loss Reduction Project.
Japan Bank for International Cooperation (JBIC)	JBIC is providing financing for transmission systems particularly in Visayas and Mindanao, also involved in supporting private investors for power generation plants.
Japan International Cooperation Agency (JICA)	JICA is providing institutional support to the Department of Energy for the preparation of the Power Sector Development Program (including demand forecast methodology), Transmission Development Plan, and Missionary Electrification Development Plan.
United States Overseas Private Investment Corporation (OPIC)	OPIC's substantial exposure to the sector is well diversified and all of its NPC risk is counter-guaranteed by the Government of the Philippines. In 2003, OPIC insured a $250 million 15-year National Power Corporation and Power Sector Assets and Liabilities Management Corporation bond with non-honoring of sovereign guarantee coverage.
US Agency for International Development (USAID)	USAID, through US Department of Energy, provides technical assistance to the Energy Regulatory Commission in tariff setting, rate unbundling, removal of cross-subsidies; guidelines on open access and relevant institutional strengthening, including training.
Other Bilateral Assistance	Bilateral aid agencies from Australia, Denmark, France, Germany, and United Kingdom provide support to strengthen the Energy Regulatory Commission, and to develop new and renewable energy, and rural electrification.

Sources: Asian Development Bank, Department of Energy, and World Bank.

FINANCIAL ANALYSIS OF
POWER SECTOR ASSETS AND LIABILITIES MANAGEMENT CORPORATION

(This information was deemed confidential according to exception no. 8 of ADB's Public Communications Policy.)

LIST OF INELIGIBLE ITEMS

1. Loan proceeds will finance the foreign currency expenditures associated with the restructuring costs during the implementation period of the Power Sector Development Program in the Philippines.

2. No withdrawals will be made for the following:

(i) expenditures for goods included in the Standard International Trading Commodity chapters or headings (Table A8);

Table A8: Ineligible Items

Chapter	Heading	Description of Items
112		Alcoholic beverages
121		Tobacco, unmanufactured; tobacco refuse
122		Tobacco, manufactured (whether or not containing tobacco substitute)
525		Radioactive and associated materials
667		Pearls, precious and semiprecious stones, unworked or worked
897	897.3	Jewelry of gold, silver, or platinum-group metals (except watches and watch cases), and goldsmiths' or silversmiths' wares (including set gems)
971		Gold, nonmonetary (excluding gold ore and concentrates)
718	718.7	Nuclear reactors, and parts thereof, fuel elements (cartridges), nonirradiated for nuclear reactors

Source: United Nations.

(ii) expenditures in the currency of the Borrower, or of goods supplied from the territory of the Borrower;

(iii) payments for expenditures incurred more than 180 days before the effectiveness date of the loan;

(iv) expenditures for goods supplied under a contract that any national or international financing institution or agency will have financed or has agreed to finance, including any contract financed under any loans from the Asian Development Bank;

(v) expenditures for goods intended for a military or paramilitary purpose, or for luxury consumption;

(vi) expenditures for narcotics; and

(vii) expenditures for pesticides categorized as extremely hazardous or highly hazardous in classes I-a and I-b, Classification of Pesticides by Hazard and Guidelines to Classification.

SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY

A. Linkages to the Country Poverty Analysis

Is the sector identified as a national priority in country poverty analysis?	☐ Yes ☒ No	**Is the sector identified as a national priority in country poverty partnership agreement?**	☐ Yes ☐ No[a]

Contribution of the sector to poverty reduction in the Philippines:
The Program will improve the investment climate and promote economic growth that will benefit the poor. Specifically, a major component of the current energy sector restructuring program in Philippines is to provide rural areas with electricity access at affordable price to attain economic and social development. Lifeline rates will be provided to poor consumers. With access to electricity, the poor will enjoy better education, entertainment, communication, health, comfort, convenience, and productivity.

B. Poverty Analysis   **Targeting Classification:** General intervention

What type of poverty analysis is needed?

As electricity is an input to most economic processes, it is an important ingredient of economic development that is essential for poverty reduction. Provision of electricity throughout the country is one of the key tasks of the Government's Medium Term Development Strategy (2004–2012). The proposed Program will help provide an adequate and reliable electricity supply to satisfy the forecast electricity demand, including the accelerated rural electrification initiatives. Although the impact on poverty reduction cannot be quantified, the lower power tariff and application of lifeline rate will benefit poor consumers. The lifeline rate provides less expensive electricity for grid-connected end-use customers with low electricity consumption. The subsidies provided by the lifeline rate schemes are extensive in the Philippines. For example, residential customers in the Meralco franchise area using less than 50 kWh per month get a discount of 50% on their electricity bill, and customers using from 51–100 kWh per month get a 20% discount. To fund these subsidies, all customers using more than 100 kWh per month pay an additional ₱0.0761 per kWh.

C. Participation Process

Is there a stakeholder analysis?	☐ Yes	☒ No
Is there a participation strategy?	☐ Yes	☒ No

D. Gender Development

Strategy to maximize impacts on women:

Though increased electrification rate will improve women's living condition and productivity in particular, the program is not a gender-specific.

Has an output been prepared? ☐ Yes ☒ No

E. Social Safeguards and other Social Risks

Item	Significant/ Not Significant/ None	Strategy to Address Issues	Plan Required
Resettlement	☐ Significant ☐ Not significant ☒ None	No negative impacts to be mitigated	☐ Full ☐ Short ☒ None
Affordability	☒ Significant ☐ Not significant ☐ None	Lifeline tariff is being reviewed to better target the poor	☒ Yes ☐ No
Labor	☐ Significant ☐ Not significant ☒ None		☐ Yes ☒ No
Indigenous Peoples	☐ Significant ☐ Not significant ☒ None		☐ Yes ☒ No
Other Risks and/or Vulnerabilities	☐ Significant ☐ Not significant ☒ None		☐ Yes ☒ No

kWh = kilowatt-hour, Meralco = Manila Electric Company.

[a] The power sector is not identified as a priority in the Poverty Partnership Agreement signed in 2001. The agreement has not been updated.