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Opening Electric Power Generation to the Private Sector in the Philippines: Policy Origins and Early Experience

by

Peter C. Evans

B.A. Political Economy
Hampshire College
(1986)

Submitted to the Department of Urban Studies and Planning
in Partial Fulfillment of the Requirements for the Degree of

Master of City Planning

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Signature of
Author _____

Department of Urban Studies and Planning
May 18, 1990

Certified
by _____

Paul J. Smoke
Assistant Professor of Political Economy and Planning
Thesis Supervisor

Accepted
by _____

Phillip L. Clay
Associate Professor of Urban Studies and Planning
Chair, M.C.P. Committee

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Abstract

The Philippine government has recently removed many of the legal barriers that have prevented the private sector from building, owning, and operating power plants in the Philippines. This policy is widely supported as a potential solution to the country's power crisis. However, the reasons behind this support are not necessarily uniform or consistent.

Only one firm, Hopewell Holdings Ltd of Hong Kong has succeeded in signing a contract with the NPC, which resulted in the 200 MW gas-fired plant located in Navotas. Another major 220 MW coal-fired cogeneration facility proposed by a consortium led by the U.S.-based private power developer Cogentrix never went forward. Cogentrix pulled out of the project after two years of negotiations with the NPC.

The purpose of this thesis is to better understand the origins of private power policy in the Philippines and the interests that have motivated this policy. It is also an effort to look beyond the simplistic, but widely held view that "bureaucratic delays" and "red tape" characterize the Philippines private power program and are responsible for Cogentrix's withdrawal from the Batangas project.

The lessons learned from the Philippine's experience are worth exploring given the potential significance of private power development and the challenges that have faced the government in implementing this policy. It offers an opportunity to examine the complexities involved in implementing private power projects, the tension present in negotiating these agreements, some of the larger questions that are raised by this policy.

Thesis Supervisor: Paul J. Smoke
Title: Assistant Professor of Political Economy and Planning

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Since private power policies are recent and relatively little has been written about the subject in the Philippines, I have relied heavily on interviews to understand and interpret what has taken place. A list of those individuals interviewed is provided at the end of the thesis. I would like to thank each of them for their time and assistance.

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ABBREVIATIONS

ADB	Asian Development Bank
BPPF	Block Power Production Facility
BBC	Batangas Cogeneration Company
BOT	Build, Operate, Transfer
DOF	Department of Finance
IAC	Inter-Agency Committee
ICC	Investment Coordinating Council
IMF	International Monetary Fund
Kwh	Kilowatt Hours
MW	Magawatt
NEA	National Electrification Administration
NEC	National Economic Council
NEDA	National Economic and Development Authority
NPC	National Power Corporation
OEA	Office of Energy Affairs
PDP	Power Development Program
PSGF	Private Sector Generation Facility
PURPA	Public Utilities Regulatory Policies Act of 1978
U.S. AID	U.S. Agency for International Development

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Chapter 1. Introduction

The Philippine government has recently removed many of the legal barriers that previously prevented private firms from building, owning, and operating power plants in the Philippines. The broad legal framework for this policy was established by Executive Order 215 and signed into law by President Aquino in 1987. This action was followed by rules and regulations issued jointly by the Office of Energy Affairs (OEA), the National Power Corporation (NPC) and the National Electrification Administration (NEA), which specified the scope and ground rules for generating facilities proposed by private companies.

The lead role for implementing the country's private power program has been assumed by the NPC, a state-owned utility responsible for the development of power generation and transmission lines in Luzon, Visays, Mindanao and other major islands in the country. In taking on the role of implementing Executive Order 215, the NPC has assumed responsibility for establishing buy-back rates for private sector power generation and for negotiating contracts with developers. The NPC also serves as the lead agency in the review process, and in this capacity serves as the link between the developers and other government agencies in obtaining the approvals required for proposed projects to move forward. Although the OEA is responsible for policy formation and planning for the energy sector, it only serves a monitoring function with respect to the private power program. The OEA has no regulatory authority over the NPC's implementation activities.

Since Executive Order 215 became law, a wide range of power projects have been proposed by interested firms. By 1989, six companies received accreditation from the NPC for nine different projects. At the end of 1990, the number of companies increased to 16 and the number of projects accredited to 21 for a combined capacity of 2,064 MW.¹ Most of these projects were proposed on a Build, Operate, Transfer (BOT) basis. Under the BOT concept, the private firm finances, constructs, owns and operates a power plant for a designated period of time, usually from 10 to 20 years. At the end of this period, the project is then transferred to the NPC at no cost.

However, while the NPC has been successful in attracting and accrediting a significant number of private power projects, it has been less successful in translating these proposals into power plants. Only one firm, Hopewell Holdings Ltd of Hong Kong has succeeded in signing a contract with the NPC, which resulted in the 200 MW gas-fired plant located in Navotas that became fully operational in January 1991. Another major 220 MW coal-fired cogeneration facility proposed by a consortium led by the U.S. based energy company Cogentrix never went forward. Cogentrix pulled out of the project after two years of negotiations with the NPC.

Before Cogentrix pulled out of the Philippines, there was great expectation for the private sector power generation program. Some in the Philippine government began to express hope that the Philippine's privatization effort would serve as a model for other developing countries.² A number of other countries have taken steps to encourage private sector firms to build and finance new power plants including Turkey, Indonesia, Thailand, the Dominican Republic, and Pakistan. However, developers involved in negotiating private sector BOT projects have been critical of the implementation process,

¹Power Sector Report, Full Year 1990," Memorandum, Office of Energy Affairs, March 8, 1991.

²W.R. de la Paz, "Private Power: The Philippines Experience," unpublished paper, Jordan Private Power Conference, Electricity Options for the Future, December 12, 1989. p. 18.

claiming that it is slow, overly bureaucratic and burdensome for developers.³ This criticism intensified when the Cogentrix pulled out of the Batangas project. Still, despite these criticisms, the Philippines is considered at the forefront of removing barriers to private sector development among developing countries.⁴

The lessons learned from the Philippine's experience are worth exploring given the potential significance of private power development and the challenges that have faced the government in implementing this policy. A number of question are of particular interest. Why has the Navotas project been the only one to succeed thus far? Why did Cogentrix abandon its effort to develop the Batangas project? What characteristics of the Hopewell project allowed it to work while the Cogentrix project failed? How might one characterize the government's process of implementing private power projects? Exploring these questions offers an opportunity to examine the complexities involved in implementing BOT private power projects, the tensions present in negotiating these agreements, and problems that exist with the current approval process.

In attempting to answer these questions, it is important to understand the broader context in which these projects were proposed and the different motivations behind Executive Order 215. Since the middle of the 1980's, the Philippines has suffered from a growing shortage of electric generating capacity, and a lack of budgetary resources and borrowing capacity to finance new power projects. Allowing the private sector to generate electricity was identified as a potential solution to the power crisis by a number of key actors, including Philippine government officials and the U.S. Agency for International Development (U.S. AID), as well as the international business and financial communities. However, the reasons why of each of these actors favored this policy were quite different.

³William Dykes, "Financing Private Power Projects," unpublished paper, Opportunities in Private Electric Power Generation & Energy Conservation in Developing Countries, Washington DC, July 12, 1989. p.11.

⁴James B. Sullivan, "Private Power in Developing Countries: Early Experience and a Framework for Development," *Annual Review of Energy*, 1990, Vol. 15, p. 345.

For the Philippine government, allowing the private sector to build and operate power plants offers an opportunity to help meet the current shortages in electric generating capacity without assuming large new debt commitments. Under a BOT arrangement, the private sector assumes the responsibility for financing the power plant and is paid on a per kilowatt basis for the electricity it produces. In this way, private power provides an opportunity for the government to tap new resources to contribute to the huge capital requirements of the power sector. The financing "additionality" attributed to BOT projects was one of the principal reasons for the government's interest in private power generation.⁵

For the U.S. AID, on the other hand, private power offers an opportunity to play a much more active role in promoting U.S. trade and investment in developing countries. Since the 1970's, U.S. manufacturers of electrical equipment have been steadily losing market share to European and Japanese competitors. Encouraging countries to adopt private power policies has been identified by U.S. AID's Office of Energy as one way to reverse these trends and to support U.S. business interests abroad.⁶ In the Philippines, the agency has played an active role in encouraging the Philippine government to adopt private power policies. In doing so, the agency has borrowed heavily from the experience with private power in the United States. As a result, the laws and regulations that the Philippine government has adopted have been modeled on the U.S. Public Utilities Regulatory Policies Act of 1978 (PURPA).⁷

⁵Alberto Dalusong, III, "Philippines: ASEAN Country Panel Discussion by Selected ASEAN Participants," ASEAN/AIT/US AID Senior Executive Seminar on Cogeneration and Private Power, Hua Hin, Thailand, November 9-11, 1988, (Bangkok, Thailand: Regional Energy Resources Information Center) 1990, p.79.

⁶*Power Shortages in Developing Countries: Magnitude, Impacts, Solutions, and the Role of the Private Sector*, A Report to Congress, U.S. Agency for International Development, Washington, DC, March 1988. pp. 28-30.

⁷For a brief introduction to PURPA see Elizabeth M. Gunn, Steven C. Ballard, and Michael D. Devine, "The Public Utility Regulatory Policies Act: Issues in Federal and State Implementation," *Policy Studies Journal*, Vol. 13, No. 2, December, 1984.

Private power policies have also been strongly supported by the business and banking community. Private power offers new investment opportunities for major international contracting firms, investors, and equipment suppliers. Even before Executive Order 215 was issued in the Philippines, a number of large contracting firms, including Hopewell, had been pioneering the concept of BOT as a way to promote and finance major infrastructure projects. With the decline in international business opportunities in the early 1980's and the growing inability of Third World governments to finance large infrastructure projects as the debt crisis intensified, BOT was identified as a way to overcome these problems and provide non-recourse project financing.⁸ Private power policies like those adopted in the Philippines are favored for reducing the barriers to this type of development. Like the business community, multilateral banks have also been supportive of these policy changes, particularly the World Bank and the Asian Development Bank. Part of this support stems from changing attitudes about the contributions that the private sector can make towards development.⁹ However, it also appears to arise from the financial attractiveness of BOT schemes, which are structured around take or pay contracts. This type of contract locks a project into a fixed return on investment and therefore reduces some of the risks associated with lending to financially troubled state-run utilities.

Thus, while private power is widely supported as a solution to the power crisis in the Philippines, the reasons behind this support are not necessarily uniform or consistent. This has created tensions that have been reflected in the implementation of the NPC's private power program and help to explain some of the problems that arose in negotiating the Navotas and Batangas projects.

⁸Mark Augenblick and B. Scott Custer, Jr. "Build, Operate and Transfer (BOT) Approach to Infrastructure Projects in Developing Countries," Policy, Research, and External Affairs Working Paper, World Bank, August 1990, p. 2.

⁹Paul Cook, "Recent Trends in Multilateral Development Bank Lending to the Private Sector in Developing Countries: Policy and Practice," *Development Policy Review*, Vol. 6, 1988.

The purpose of this thesis is to explore the origins of private power policies in the Philippines and to examine the experience implementing these policies through the Hopewell and Cogentrix projects. The first chapter explores the power crisis in the Philippines, the financial troubles at the NPC and the scope and intent of Executive Order 215. The second chapter explores the origins and motivations of U.S. AID's involvement in pushing private power policies in the Philippines. The third and fourth chapters turn to the experience of implementing private power projects by examining why the Navotas project went forward and why the Batangas project ultimately did not. The final chapter offers concluding observations on the implementation process, suggests ways of improving the process and outlines some of the larger issues raised by private power policies in the Philippines.

Chapter 2. The Origins of Private Power in the Philippines: Part I

The Critical Need for Power

When President Aquino came to power in 1986, the economy began to revive after a period of steep decline. In 1986, the economy grew by 2 percent, followed by a 5.9 percent increase in 1987 and a 6.7 percent increase in 1988. The expansion of the economy led, in turn, to a significant increase in the demand for electric power throughout the country. The surge in demand was particularly strong in the Metro Manila area. Between 1987 and 1988, residential and commercial usage in the city rose by 10 percent and 14 percent respectively. Demand from the industrial sector showed even larger increases, growing by 26 percent over the same 1987-88 period.

However, as the demand for electricity grew, brown-outs and loadshedding became chronic problems. The greatest impact was on the Luzon grid, which serves approximately 76 percent of the country's total electric needs, including Metro Manila and surrounding industrial estates. At certain critical periods, particularly during the summer months between March and June when the electric output of the country's hydropower stations declined due to low water levels, the Aquino Administration was forced to introduce drastic measures to reduce power consumption. For example, in the early part of 1990, the President announced a "workless Monday" program for Manila's largest office buildings, which affected approximately 150,000 workers. These measures were

later replaced by uniform two-hour, daily brownouts rotated throughout Metro Manila.¹⁰ In a play on its acronym, the NPC became widely known in Manila as the "No Power Corporation."

The economic costs attributed to the the power shortages are high. A joint study conducted by the OEA in conjunction with US-ASEAN Council for Business and Technology estimated that the cost of power outages in 1989 alone amounted to 5.8 billion pesos or \$276 million. The study further attributed losses of 94.1 million pesos or \$4.5 million to reductions in salaries and wages, especially in the textile, garment, plastic and metal fabricating industries. However, the authors of the OEA study contend that these figures are conservative; they do not account for the harder to measure but potentially significant costs associated with increases in consumer prices or lost investment resulting from the power shortages.¹¹

The lack of adequate and reliable electric power is widely considered a serious constraint on the growth and development goals of the country. In 1989, the Philippine Center for Research and Communication identified energy shortages on Luzon as one of the single-most important short-term problems facing the economy and stressed the close relationship between energy availability and sustained economic recovery. Recent sector studies conducted by the World Bank, Asian Development Bank and U.S. AID have also identified the power subsector as a significant impediment to future growth in the Philippines.¹²

¹⁰John McBeth, "People powerless: Electricity crisis plunges Manila further into gloom," *Far Eastern Economic Review*, May 10, 1990.

¹¹*Electric Energy Survey of Key Commercial and Industrial Establishments*, Office of Energy Affairs, US-ASEAN Council for Business & Technology, sponsored by the U. S. A.I.D. Manila, Philippines, February 1991.

¹²*Asian Development Outlook 1990*, Asian Development Bank, 1990, p. 109.

NPC's Financial Troubles

While the economic expansion has increased the demand for electricity, the origins of the power crisis can be traced to the NPC's inability to implement its power expansion program during the 1980's. In 1981, the NPC proposed to add 3,052 MW of new capacity to the Luzon grid; however, a combination of economic and political factors severely disrupted the implementation of this program. By 1990 only 1,192 MW were commissioned, less than 40 percent of the proposed expansion (Table 1).¹³

A major factor that disrupted the program was the balance of payments crisis that took place in the mid-1980's.¹⁴ In 1983, banks halted new project loans to the NPC and even cancelled \$67 million in loans that had already been committed to the utility. A strict stabilization program introduced by the International Monetary Fund (IMF) led to a significant decrease in overall government spending. As a result, public sector investment in the energy sector, which had averaged 15 percent of GNP during the 1970's, fell to half this in mid-1980's. This was not the only factor to affect the NPC expansion program. In 1986, shortly after the Chernobyl nuclear accident in the Soviet Union, President Aquino terminated the controversial \$2.2 billion 620 MW Bataan nuclear power plant even though it was almost completed and near commissioning. As a result of Aquino's decision and the retrenchment in public spending, no new plants were commissioned for the Luzon grid for nearly five years, a situation that set the stage for the brown outs and other power disruptions when the economy began to grow again.

¹³"The Operational Aspect of NPC's High Rates," unpublished paper, Utility Economics Division, MERALCO, March 25, 1991.

¹⁴Robert S. Dohner and Ponciano Intal, Jr. "The Marcos Legacy: Economic Policy and Foreign Debt in the Philippines," in Jeffrey D. Sachs and Susan M. Collins, *Developing Country Debt and Economic Performance Vol. 3, Country Studies- Indonesia, Korea, Philippines, Turkey*, Chicago, The University of Chicago Press, 1989, p. 524-558.

The falling value of the peso also hurt the NPC. From 1977 to 1987, the peso lost 66 percent of its free market value, and the effective exchange rate fell from P7.4 to P20.5

Table 1

NPC Power Expansion Program, 1981-1990
Built and Unbuilt Plants in Luzon Grid as of Dec. 1990

Plants Built (1981-1984)			Unbuilt Plants (1985-1990)		
Masiway	12	MW			
Tiwi 5, 6	110		PNPP†	620	MW
Kalayaan	300		Tiwi 7, 8	110	
Magat 1-4	360		Tongonan 4-11	440	
MakBan 5, 6	110		Calaca II	300	
Calaca I	300		San Roque	390	
	1,192	MW		1,860	MW

†The Philippine Nuclear Power Plant (PNPP) was built but never commissioned.
Source: Utility Economics Division, MERALCO

to the dollar.¹⁵ While the depreciation of the peso aided external trade and import substitution, it further aggravated the NPC's financial problems. Since a large portion of the NPC's operational and capital expenses are in hard currency, the declining value of the peso steadily eroded the utility's relative purchasing power over the years.

In the past, the NPC was supported by equity infusions from the central government, and therefore was largely immune from running deficits. However, since the introduction of conditions by the IMF aimed at controlling the state's budget deficit,

¹⁵Philip P. Cowitt, *1988-1989 World Currency Yearbook*, Brooklyn, NY, International Currency Analysis, Inc., 1991, pp. 515-516.

this practice has ended. Steps to increase the NPC's revenue base by raising electric tariffs were taken by the government. However, the size of these increases were constrained by strong consumer resistance and by the fact that average industrial power rates in the Philippines are already among the highest in Asia. Further increases in power tariffs were likely to be politically difficult and conflict with the government's effort to increase exports in manufacturing sector. Power rate increases may also aggravate inflation, which has exceeded the 8 percent target set under the Memorandum of Economic Policy with the IMF since 1988.

In addition to external factors, the NPC's financial troubles can also be traced to inefficient operations and inaccurate planning. For example, the NPC underestimated the growth in demand for the Luzon grid in its 1987 Power Development Program. Between 1987 and 1990, forecasted figures fell short by as much as 7 percent or 209 MW (Table 2).¹⁶ To make up the difference, the NPC has invested heavily in high speed gas turbines, which can be commissioned relatively quickly but are very expensive to operate. Public hearings held to probe the heavy reliance on gas turbines, among other things, revealed that operational expenses rose from P9.7 billion to P15.1 billion, or 57 percent between 1989 and 1990.¹⁷

The NPC is widely believed to be suffer from managerial inefficiencies. To demonstrate the level of inefficiency, the press is fond of pointing to the fact that there are 23 vice presidents and six senior vice presidents at the utility.¹⁸ Some questionable activities also surface from time to time. For example, in 1991 the press revealed that P158 million, or the equivalent of \$5.6 million, was lost when NPC officials were

¹⁶"The Operational Aspect of NPC's High Rates," unpublished paper, Utility Economics Division, MERALCO, March 25, 1991. p. 9.

¹⁷Senator Heherson T. Alvarez, "Some Questions for Mr. Aboitiz/ NPC Officials," Committee on Natural Resources and Ecology, Public Hearings, March 22, 1991. p. 7-8.

¹⁸"Nation Better Off Without Aboitiz & Co." Editorial, *Philippine Daily Inquirer*, Tuesday, March 26, 1991.

Table 2

Luzon Grid Peak Demand:
Actual vs. Forecasted Figures in MW for the
National Power Corporation's 1987 Power Development Program

Year	Forecast	Actual	Difference
1987	2,505	2,592	-87
1988	2,610	2,780	-170
1989	2,729	2,938	-210
1990	2,863	2,973	-110

Source: Utility Economics Division, MERALCO

cheated in a black market transaction. Follow-up Congressional investigations further revealed that the NPC had bought approximately P1.2 billion worth of dollars at black market rates to meet its foreign loan obligations. While partly reflecting the utility's inability to meet its foreign exchange needs through proper channels, these kinds of events have added to the NPC financial troubles.

In its 1990 Power Development Program, the NPC proposed a total of 4,750 MW of new generation capacity in Luzon, Visays and Mindanao over the next ten years to meet the country's growing electric demand. This is planned as 2,320 MW of coal, 1,720 MW of geothermal, 1,234 MW of hydropower, and 900 MW of gas/diesel. The cost of these investments is expected to be P150 billion or \$5.3 billion. Investment in transmission is expected to be an additional P52 billion or \$1.8 billion. Total foreign borrowing requirements over the 10 year development program are expected to be P227.9 or \$8.1 billion.¹⁹ However, the NPC's worsening financial condition has called into question its ability to implement the 1990 program.

In 1990, the NPC posted a net loss of P68 million, the first loss the company has recorded since World War II. The net loss is expected to reach P5.04 billion by the end

¹⁹ *1990 Power Development Program*, Planning Services Corporate Affairs, National Power Corporation, Quezon City, Philippines, 1990. p. 6.

of 1991. As a result, the NPC has been unable to meet its loan covenants with the World Bank and Asian Development Bank. The Banks require a debt service coverage ratio of 1.3; however, the NPC's sank to 1.1 in 1990 and is projected to fall to 0.91 in 1991. A report by a World Bank mission sent to the Philippines in early 1991 expressed "extreme concern" over the financial performance of the utility. It recommended the suspension of loan disbursements unless the NPC's financial performance improved and threatened to halt funding for major geothermal and hydropower projects.²⁰

Executive Order 215

While the extent of the power shortages and the NPC's financial constraints were not fully anticipated, the urgency of the situation was beginning to emerge in 1986 and 1987. To develop a response, a committee was formed to advise the Cabinet on policy recommendations for the power sector. The committee included the National Economic Development Authority (NEDA), the NPC, the Board of Energy, the Federation of Electric Cooperatives in the Philippines and the Philippine Chamber of Commerce and Industry among others. One of the policies that the committee recommended was to allow private sector participation in power generation.²¹ This recommendation was approved by the Cabinet in May 1987 and formed the basis for Executive Order 215 that was issued in July 1987.

Executive Order 215 declared that the generation of electricity, unlike transmission and distribution, was not a natural monopoly and, therefore, it would be appropriate to

²⁰Roel R. Landingin, "WB Threatens to Stop Funds to Napocor." *Daily Globe*, April 1, 1991. Ellen S. Marcelo, "NPC Defers Big Hydropower Project," *Manila Bulletin*, March 29, 1991. see also Roel R. Landingin, "WB Delays Appraisal of Geothermal Project," *Daily Globe*, March 27, 1991.

²¹W.R. de la Paz, "Private Power: The Philippine Experience," unpublished paper, Jordan Private Power Conference, Electricity Options for the Future, December 12, 1989. p. 4.

allow private parties to build and sell electricity to the NPC. Four types of plants were identified as permissible under Executive Order 215:

- i) Cogeneration units, defined as the production of electric energy and forms of useful thermal energy (such as heat or steam), used for industrial, commercial, heating or cooling purposes through sequential use of energy;
- ii) Electric generating plants intending to sell their production to the grids, consistent with the developmental plans formulated by the National Power Corporation;
- iii) Electric generating plants, intended primarily for the internal use of the owner, which also plan to sell excess production to the grids;
- iv) Electric generating plants, outside the National Power Corporation grids, intending to sell directly or indirectly to end-users.

However, while Executive Order 215 opened the generation of electric power to the private sector, it is important to note that the Order also reaffirmed the NPC's central role in the "strategic and rational development" of the country's power grids.²² In 1972, the NPC was granted responsibility for the construction and operation of all power generation facilities in Luzon, Visays, Mindanao and other major islands through Presidential Decree No. 40. Therefore, while Executive Order 215 amended Presidential Decree No. 40 and reduced the NPC's exclusive right to build and operate power plants, it maintained the utility's role in planning for the nation's power sector. Private corporations would be allowed to construct and operate power plants, but only as long as these plants were consistent with plans formulated by the NPC.

Alternative policies could have been adopted. Other potential approaches to increasing the role of the private participation in the power sector include: competitive distribution, consumer cooperatives, sale of stock or bonds by the state-owned utility, or the complete divestiture and privatizing of a state-owned utility.²³ Indeed, at the time

²²Executive Order No. 215, Section I, Malacanang, Manila, July 14, 1987

²³Gabriel Roth, *The Private Provision of Public Services*, London, Oxford University Press, 1987, pp 86-87. See also "Private Sector Participation in Power Development," A consultant Report, Energy Planning Unit, Industry and Development Banks Department, Asian Development Bank, Manila, November 1988.

that Executive Order 215 was being formulated, the Aquino Administration was undertaking a major privatization program to reduce the government's role in the economy by selling state-owned enterprises.²⁴ In spite of the trend, Executive Order 215, explicitly reaffirmed the NPC's role as an instrument of the state.

The rationale behind this policy has been explained by the Director of the OEA in the following way:

While the introduction of private shareholders would serve to attract additional badly needed capital to the generation side and while the signing of Executive Order 215 withdraws NPC's exclusive power generation role, it is deemed that NPC performs a crucial function of national sector planning to determine the mix of generation plant needed to balance electricity supply with the projected demand on a continuous basis and at least cost to the economy. Privatizing the NPC, therefore, may result in a major difference in planning decision making as these will be based on financial considerations and not economic ones.²⁵

Also clear from Executive Order 215 is the position that private power projects would have to stand on their own merits. The Order clearly states that private power development should take place without any financial assistance or guarantee from the government. This reflects a more general policy position discouraging blanket government guarantees or obligations which had been granted liberally to ill affect under the Marcos Administration.²⁶

Although Executive Order 215 offers an opportunity for the private sector to participate in the development of power, the scope and purpose of this participation was clearly limited to mobilizing private sector resources in a way that is consistent with national priorities. According to the Director of the OEA, this policy was designed to

²⁴Stephan Haggard, "The Philippines: Picking Up After Marcos," in Raymond Vernon, ed., *The Promise of Privatization: A Challenge for U.S. Policy*, New York; Council on Foreign Relations, 1988, pp. 91-121.

²⁵W.R. de la Paz, "Private Power: The Philippine Experience," unpublished paper, Jordan Private Power Conference, Electricity Options for the Future, December 12, 1989. p. 8.

²⁶Stephan Haggard, "The Philippines: Picking Up After Marcos," in Raymond Vernon, ed., *The Promise of Privatization: A Challenge for U.S. Policy*, New York; Council on Foreign Relations, 1988, p. 106.

meet four principle goals:

- i) Increase power capacity to meet future power demand growth;
- ii) Reduce financial guarantees of the government in the power sector;
- iii) Hasten the development of indigenous energy resources; and
- iv) Rationalize the operation of electric generating facilities.

Rules and Regulations

The task of developing the rules and regulations to implement Executive Order 215 was assigned to the NPC in consultation with the NEA. The draft rules were completed by the NPC and NEA and submitted to the OEA for review in August 1988. Following the OEA's review, public hearings were held in February 1989 to give an opportunity for interested parties to comment. The final rules were eventually promulgated in June 1989.

The rules stipulate that all private parties wishing to build and operate generating facilities must be certified and accredited by the NPC or NEA, depending on the location of the proposed project. The rules established three broad classifications for Private Sector Generating Facilities (PSGF): 1) mini-PSGF's, less than or equal to 1 MW; 2) PSGFs, greater than 1 MW but less than 10% of the peak demand of the grid in which they are located; and 3) Block Power Production Facilities (BPPF), which are distinguished from a PSGF in that they must conform to NPC's expansion program. This last category provides a means for the NPC to solicit proposals from the private sector to build projects in its Power Development Program (Table 3).

While the rules provide few restrictions on the types of private power project that are possible under Executive Order 215, there are also few incentives. For example, there are no restrictions or incentives for specific energy technologies or fuel types. The rules simply state that a PSGF may be cogeneration, renewable, or a project that uses

rules simply state that a PSGF may be cogeneration, renewable, or a project that uses indigenous energy resources as its primary fuel. The rules do not address a PSGF's use of imported coal or oil. Likewise, there are few restrictions on ownership. A PSGF may be constructed, owned and operated by individuals, private corporations, and cooperatives, foreign or otherwise, subject to Philippine laws. The only restriction applies to companies that are already in the business of generating or selling electricity.

Certain obligations are placed on the NPC and NEA with respect to assisting private power developers, but they are relatively minor. For example, the rules state the the NPC or NEA shall help the developers of mini-PSGFs to meet the requirements of government agencies and shall shoulder all the costs required to interconnect with these facilities. Time tables are established for accrediting proposed projects. This period is limited to one month for mini-PSGFs, and three months for larger PSGFs. However,

Table 3

**Definition of Private Sector Participation in Power Generation Under
Joint OEA/ NPC/ NEA Rules and Regulations**

Type	Size	Power Purchase Rate	Accreditation Processing Period	Product
PSGF- mini	≤ 1,000 Kw	uniform	one month	Electricity and Thermal Energy
PSGF	≥ 1,000 ≤ largest NPC plant	uniform†	three months	
BPPF	must be in accordance with NPC's Power Development Program	case to case basis	unspecified	

† Uniform to the extent possible, but not to exceed the costs of power had NPC built or generated the power itself.

accreditation is only the first step in the process of approving a private power project. Once a project has been accredited, the developer must then negotiate a power purchase contract with the NPC. No time tables are provided for the contract negotiations.

The purchase rates for qualifying PSFGs are based on avoided cost, which is defined as an amount not to exceed the cost of electricity on a specific grid had the NPC built the facility or generated the electricity itself. No specific methodology is provided on how the avoided cost rates should be determined, although they are to be differentiated according to the availability and reliability of the power to be purchased. These rates are to be uniform to the extent possible; however, in the case of BPPFs, avoided cost is to be established on a case-by-case basis.

According to the rules, the OEA is to monitor the implementation of the private power program. For example, once a project has been accredited by the NPC, a copy of the certificate of accreditation must be forwarded to the OEA. The rules also give the OEA the authority to settle any matter that hinders the interconnection of the PSGF with the NPC. However, the criteria and mechanisms for settling potential disputes are not provided. It is also not clear whether this authority includes potential disputes that might arise over the appropriate avoided cost calculations or other issues critical to a contract between the NPC and the private developer.

In sum, while the rules and regulations to implement Executive Order 215 provide a framework for processing private power proposals, they lack specific procedures and criteria. On one hand, this provides the NPC with a great deal of discretion in developing a private power program and negotiating specific private power projects. On the other hand, as will be shown, the lack of clear rules can frustrate the negotiation process. However, before exploring the experience in negotiating specific projects, it is instructive to explain the role that U.S. AID has played in shaping the private power program in the Philippines.

Chapter 3. The Origins Private Power in the Philippines: PART II

The Role of U.S. AID

U.S. AID's Office of Energy has played an important role in promoting private power policies in the Philippines. In 1987, the agency played a key role in introducing the concept of private power to Philippine government officials and in encouraging the adopting of Executive Order 215.²⁷ The agency also played an advisory role in the formulation of the Rules and Regulations to implement Executive Order 215. In providing this advice, U.S. AID drew from the experience with private power in the United States. As a result, the framework for private power in the Philippines is modeled on the U.S. Public Utilities Regulatory Policies Act of 1978 (PURPA), which provided the basis for private power development in the United States.

In addition to playing a role in the development of the laws and regulation governing private power in the Philippines, U.S. AID sponsored a number of conferences in the Philippines and other neighboring countries including Thailand, Indonesia and Malaysia. One of the first conferences that the agency sponsored was a seminar and roundtable on private power generation held in Manila in October 1988, which was organized in conjunction with the Office of Energy Affairs and the Philippine Chamber of Commerce and Industry. The emphasis of the conference was on the Build-

²⁷Staff, Center for International Electric Power Development, personal communication, April 30, 1991.

Operate-Transfer (BOT) approach to private power development and was targeted to specific lawmakers, government officials and private business interests.²⁸

U.S. AID has also sponsored a number of "study tours" in which officials from the NPC and OEA were brought to the United States. The purpose of these tours was to enable NPC and OEA staff to learn more about the experience with private power in the United States, including the PURPA regulatory framework and contractual issues. The visiting officials were also introduced to U.S. company representatives interested in private power projects in the Philippines. For example, in November 1990, NPC officials were brought to the States for seminars in Washington D.C. and various site visits in Virginia, Massachusetts and California. This particular trip was planned to coincide with the negotiations for the 700 MW coal-fired plant to be build in San Juan, Batangas on a BOT basis and to allow NPC officials to receive a number of unsolicited private power proposals from U.S. developers.²⁹

Most recently AID has provided funding for consultants to the NPC through its new 100 percent tied \$352 million mixed credit loan facility with the Exim Bank.³⁰ Among the consultant's tasks are to identify private sector energy projects in the Philippines that could use this new credit facility, identify projects not in the NPC expansion program, and to liaise with U.S. industry regarding Philippine power sector opportunities. The consultants are also to advise the NPC on project financing issues, utility planning with regard to private power initiatives and the evaluation of proposed projects.

²⁸*Summary Report of the Philippine Seminar and Roundtable on Private Power Generation Through Build-Operate-Transfer (BOT) Manila, Philippines October 5-6, 1988, A Report of the Office of Energy, U.S. Agency for International Development, May 1989.*

²⁹"Philippine BOT Officials Tour United States," *Private Power Reporter*, January 1991.

³⁰Philippine Capital Infrastructure Support Project, Project Paper, Agency for International Development, Washington, DC, September 1990.

The Case for Private Power

A number of arguments are put forward by U.S. AID and other proponents of private power. One of the leading advantages cited is the superior ability of the private sector to raise resources to build new electric generating capacity. The capital requirements of the power sector place a significant demand on public investment budgets of many developing countries. In the Philippines, more than 30 percent of total public investments during the 1980 went to the energy sector, with the vast majority going to the electric utility sector.³¹ Proponents argue that allowing the private sector to finance and operate power projects provides an way to alleviate some of the burden imposed on the government by the power sector. Mobilizing private sector resources may also free government resources for use in other sectors such, as education, health and agriculture.³²

Private power is also seen as a way of bringing market forces to bear in an industry that has long been dominated by a monopolistic utility. It is expected to introduce competition between private firms and the state-owned utility and create incentives that would otherwise not exist for the state-owned utility to improve performance. The private sector firm is believed to be better able to reduce the cost of constructing new capacity through greater efficiencies in system design, procurement and construction management. Private firms sensitive to changing market conditions can respond more quickly and adopt innovations more rapidly.³³

³¹U.S. Congress, Office of Technology Assessment, *Energy in Developing Countries*, Washington, DC: U.S. Government Printing Office, January 1991. p.13-14.

³²James B. Sullivan, "Private Power in Developing Countries: Early Experience and a Framework for Development," *Annual Review of Energy*, 1990, Vol. 15, p. 345.

³³*Power Shortages in Developing Countries: Magnitude, Impacts, Solutions, and the Role of the Private Sector*, A Report to Congress, U.S. Agency for International Development, Washington DC, March 1988.

There are also advantages attributed to the speed with which the private sector can build power plants. This is important because of the significant negative effects created by delays in bringing new power plants on line. First, there are immediate financial consequences since the state-owned utility must raise more capital from the government or another source to complete the project. Second, there are substantial lost opportunity costs to the economy of not having the power available when it is needed.³⁴ Since the private sector is not constrained by the same bureaucratic procedures required of state owned utilities, proponents argue that a private developer can often bring power plants on line more quickly than the public sector utility.

Finally, it is argued that private sector efficiencies extend to the maintenance and operation of plants once they are running. At the plant level, it is argued that significant benefits can be achieved through greater managerial efficiency, such as better oversight of the project and closer attention to costs. Private firms also have greater flexibility because they are not bound by the same bureaucratic procedures that bog down a public sector utility, for example, in procurement of spare parts and other equipment needed to keep plants functioning efficiently.

The Trade Factor and the Decline of U.S. Competitiveness

It is important to put the case for private power in perspective by exploring where private power policies originated. The key year for the U.S. policy agenda was 1987, which coincides closely with the timing of the Cabinet's recommendations that led to Executive Order 215 in the Philippines.

³⁴Hugh Collier, *Developing Electric Power: Thirty Years of World Bank Experience*, Baltimore, The John Hopkins University Press, 1984, pp. 110-120.

On April 10, 1987 the U.S. House Committee on Appropriations heard testimony from a group calling itself the Working Group on U.S. Technology and the Third World Power Crisis. This group was organized by the principals of the consulting firm Hagler, Bailly, Inc. and brought together electric utility companies, engineering firms, energy equipment suppliers and independent power producers.

The Working Group had three stated objectives:

- to improve the efficiency of existing power systems in developing countries
- to provide adequate power for future growth in developing countries
- to promote private investment in new generation capacity.

Two members of the working group presented testimony and described a growing power crisis throughout the Third World, particularly in South Asia, Southeast Asia and the Caribbean. More significantly, they argued that these problems could best be addressed by supporting private sector participation in power generation, and they urged greater involvement of the U.S. AID in this effort. They stressed the need for U.S. AID to coordinate more effectively with the Export-Import Bank, the Overseas Private Investment Corporations and the Trade and Development Program to help level the playing field with foreign competitors in order to support U.S. private power developers in developing countries.³⁵ They also suggested that U.S. AID could assist through cost sharing of market development costs, debt service guarantees, political risk concerns and other means that could create a safer financial environment for the developer and the equity participant in developing countries.³⁶

³⁵Charles A. Cannon, Hearings before the Subcommittee on Foreign Operations of the House Committee on Appropriations, Foreign Assistance and Related Programs Appropriations for 1988, One Hundredth Congress, Testimony of Members of Congress and Other Interested Individuals and Organizations, Part 6, 1987. p. 371.

³⁶Lazaros Lazaridis, Hearings before the Subcommittee on Foreign Operations of the House Committee on Appropriations, Foreign Assistance and Related Programs Appropriations for 1988, One Hundredth Congress, Testimony of Members of Congress and Other Interested Individuals and Organizations, Part 6, 1987. p. 655-656.

This testimony did not catch U.S. AID officials unaware. U.S. AID's Office of Energy had conducted informal discussions with Hagler, Bailly, Inc. and representatives of the U.S. energy industry for over a year before the Working Group on U.S. Technology and the Third World Power Crisis presented its testimony to the appropriations committee.³⁷ These discussions focused on the policy, institutional, and financial barriers to U.S. participation in developing country energy markets and the role that the Agency could play in supporting U.S. business interests in this area.

The concept of private power also supported the Agency's growing ideological commitment to the private sector during the 1980's. Under the the Reagan administration, past foreign assistance strategies emphasizing social development were rejected in favor of strategies based on private enterprise, free markets and competition.³⁸ In 1986, the Agency even went to the extent of requiring each of its overseas missions to generate at least two privatization projects by the following year.³⁹

Just as U.S. AID was ready and willing to take on the role of promoting U.S. business interests overseas through privatization, so was Congress. By the middle of the 1980s America's growing trade deficit had become a highly charged political issue.⁴⁰ In just five years, the trade deficit had grown from \$25.5 billion in 1980 to \$141.6 billion in 1985, leading to bipartisan support for a more active government role in supporting U.S. business abroad. There were growing charges of unfair trade practices aimed at Japan and other industrial countries which justified greater government support to give U.S. business interests a better chance of competing overseas.

³⁷Lazaros Lazaridis, Vice President for Marketing, Thermo Electron Energy Systems, personal communication, May 3, 1991.

³⁸Roger C. Riddell, *Foreign Aid Reconsidered*, Baltimore, Maryland, The Johns Hopkins University Press, 1987, p. 158.

³⁹Raymond Vernon, ed. *The Promise of Privatization: A Challenge for U.S. Policy*, Washington, D.C., Council on Foreign Relations, 1988, p. 20.

⁴⁰I.M. Destler, *American Trade Politics: System Under Stress*, Washington, D.C.: Institute for International Economics, 1986, p. 44.

The trade issue was closely linked to an overall decline in the American manufacturing sector. By almost every measure, America's international competitiveness had declined. Not only did the trade deficit in manufactured goods increase dramatically, but the country's share of world markets for exports declined, as did productivity, profit margins and real wages. The manufacturing sector as a whole lost 630,000 jobs between 1977 and 1986.⁴¹ There were also widespread plant closings throughout the country, which led some to raise concerns about the deindustrialization of America.⁴²

By the mid-1980's, strong arguments were emerging that warned against the demise of the country's industrial base and international competitiveness. The extent of the concern can be gauged by the book *Manufacturing Matters*, published by the Council on Foreign Relations in 1987. The authors began the book:

"Manufacturing matters mightily to the wealth and power of the United States and to our ability to sustain the kind of open society we have come to take for granted.... American competitiveness in the international economy is critical to long-term domestic prosperity, social justice, international leadership, and world order."⁴³

There was also a growing sense that there had been an over emphasis on military security to the detriment of other U.S. interests, particularly economic. An article appearing in *Foreign Affairs* in the summer of 1987 forcefully made this point. The authors argued: "Significant changes, which have taken place over the 1970s and, particularly, in the last few years, mark a watershed; as a result, economics are now more important to U.S. interest in the developing world than are issues of military security."

⁴¹Pearl M. Kamer, *The U.S. Economy in Crisis: Adjusting to the New Realities*, New York, Praeger Publishers, 1988. p. 31.

⁴²Barry Bluestonne and Bennett Harrison, *The Deindustrialization of America: Plant Closings, Community Abandonment, and the Dismantling of Basic Industry*, New York: Basic Books, Inc., 1982.

⁴³Stephen S. Cohen and John Zysman, *Manufacturing Matters: The Myth of the Post-Industrial Economy* New York: Basic Book, Inc.1987, p. 3.

They went on to point out that "between 1980 and 1985 more than half of the decline in U.S. exports resulted from a decrease in purchases by developing countries."⁴⁴

Despite the wide range of competing interests seeking foreign aid support and the spending ceilings imposed by the Gramm-Rudman deficit reduction legislation, the requests of the Working Group on U.S. Technology and the Third World Power Crisis were treated favorably. On August 6, 1987, the Committee on Appropriations submitted the following statement to the full House:

The Committee reaffirms its support for energy development in view of the significant and disproportionate reduction in AID spending for energy over the past few years. Energy shortfalls are causing a serious constraint to development in over half of all AID-assisted countries. Several key AID countries, including Pakistan and the Philippines, are facing severe power shortages..... The Committee encourages AID to maintain a strong Office of Energy with minimum funding of \$10 million in FY 1988.

The Committee has heard testimony on the growing power crisis in lesser developed countries. A report is requested on the magnitude of the crisis, its implications for future economic and social development and the potential for U.S. technologies and services to address the problem.⁴⁵

U.S. AID's Private Sector Energy Strategy

The following year (just in time for the next round of appropriations) U.S. AID's Office of Energy issued its report *Power Shortages in Developing Countries: Magnitude, Impact, Solutions, and the Role of the Private Sector*.⁴⁶ The report confirmed that there was indeed a serious energy crisis in developing countries. Using World Bank baseline data, it was estimated that developing countries would need to spend \$2.5 trillion

⁴⁴John W. Sewell and Christine E. Contee, "Foreign AID and Gramm-Rudman," *Foreign Affairs* vol. 65, no. 5, Summer 1987, pp. 1018.

⁴⁵Report, Foreign Operations and Export Financing, and Related Programs Appropriations Bill, 1988, One Hundredth Congress, House of Representatives, Report 100-283, August 6, 1987. p.66.

⁴⁶*Power Shortages in Developing Countries: Magnitude, Impacts, Solutions, and the Role of the Private Sector*, A Report to Congress, U.S. Agency for International Development: Washington DC, March 1988, p. 50.

between 1988 and 2008, or \$125 billion dollars annually, to provide adequate supplies of electricity. The report also noted that there had been an overall decline in the position of U.S. manufactures of electrical equipment, in which total exports to developing countries had fallen from over 20 percent of market share in the late 1970's to less than 10 percent in 1988. Certain lines of equipment, such as hydroturbines, were no longer produced in the United States. However, the report stressed that developing countries still represented a significant market for U.S. goods. If U.S. suppliers could recapture the market position that they had held in the 1970's, the value of exports would be as much as \$80 to \$180 billion over the next twenty years, depending on how fast Third World economies grew.⁴⁷

The report identified three ways to address the power crisis: 1) introduce greater end-use efficiency and improved technology to lower demand where possible; 2) assist developing countries to rationalize their electricity tariffs, and; 3) lower barriers to private sector participation in power development. The third recommendation was given special attention with an entire section entitled, "The Private Sector Role and Appropriate Incentives."

To implement these recommendations, the report set the following objectives for the Agency:

- A. Improve the public policy and institutional climate for private sector participation in the electric power systems of developing countries;
- B. Facilitate the development of private sector power projects and trade opportunities;
- C. Assist with financing private power projects and trade opportunities;
- D. Coordinate and target the various programs and activities of the U.S. government and those of other donor nations and multinational development banks.

⁴⁷Ibid, p. 28-30.

The report justified the shift towards the private sector and promoting U.S. business interests by stating: "U.S. AID has a responsibility to encourage private sector participation in power, because a fundamental Agency objective is to mobilize market forces to foster economic growth. Furthermore, U.S. AID has an opportunity to assist the U.S. electricity industry. U.S. AID has devoted substantial resources to encourage private sector power through its development assistance and economic support programs."⁴⁸

The Working Group on U.S. Technology and the Third World Energy Power Crisis only met once again after the Appropriations Committee testimony was presented. Hagler, Bailly, Inc., on the other hand, received a multi-year multi-million dollar contract with U.S. AID's Office of Energy to support the agency's expanding private power promotion activities. Some of these activities include organizing conferences, maintaining a data base on private power activities in U.S. AID assisted countries, and distributing information through the newsletter *Private Power Reporter*.

In December of 1988, another industry group representing a narrower set of interests called the Energy Industry Review Group on Power Shortages in Developing Countries was formed. It was composed of 10 representatives from the U.S. energy industry, including Arco Solar, Bechtel, Combustion Engineering, General Electric, Hadson, Qualtec (FPL Group), RCG International, Stone & Webster, United Engineers & Constructors, and Westinghouse. This group has since toured a number of developing countries and prepared reports and recommendations for the Administrator of U.S. AID on how U.S. industry can assist in solving the power crisis in countries including the Philippines.

However, a key question that arises out of this policy initiative is how closely U.S. interests in trade promotion actually coincide with the Philippine's interest in meeting the

⁴⁸Ibid, p. 73.

current shortfall in capacity at the lowest cost. It assumes that U.S. firms are willing and capable of taking on long-term projects in the Philippines at a price that the NPC is prepared to pay. It also assumes that the institutional environment can be altered in such a way that it is conducive to private sector participation in power development. The next two chapters explore two projects that have dominated the the early experience with implementing private power in the Philippines and offer an opportunity to examine these assumptions.

Chapter 4. Private Power Projects: Hopewell and Cogentrix

Soon after Executive Order 215 was issued in 1987, companies interested in constructing and operating power plants in the Philippines began to approach the NPC with proposals. Investment in the Philippines was considered to carry a high degree of risk; however, these risks were offset in part by the market opportunities created by the severity of the power shortages and the difficulty that the country faced in financing new power projects. Momentum built in 1988 with a Private Power BOT conference sponsored by U.S. AID and the expectation that rules and regulations for Executive Order 215 would be issued shortly by the NPC and OEA. By 1989, six companies had received accreditation from the NPC for nine different projects. At the end of 1990, the number of companies had risen to 16 and the number of projects proposed to 21 for a total capacity of 2,064 MW.⁴⁹

However, the gap between receiving accreditation for a project and signing a power purchase agreement with the NPC and backed up by the government has been large. Hopewell has been the only company to conclude a power purchase agreement with the NPC. Their 200 MW gas-fired plant was completed in January 1991. The 220 MW cogeneration facility proposed by a consortium lead by Cogentrix was expected to be the second BOT project. However, Cogentrix withdrew from the project in the middle of 1990 citing extended delays in obtaining the necessary government approvals and permits.⁵⁰

⁴⁹"Power Sector Report, Full Year 1990" Memorandum, Office of Energy Affairs, March 8, 1991.

⁵⁰"Cogentrix Pulls Out of Batangas Power Project," *The Business Star*, June 25, 1990. see also Erle Norton, "Cogentrix Says Never Mind to Philippines," *The Business Journal-Charlotte*, July, 23, 1990.

Cogentrix project received extensive press coverage, both in the Philippines and internationally. Dozens of articles appeared about the withdrawal in the Philippine press, with most of them directly blaming bureaucratic red tape for Cogentrix's withdrawal. The story was even picked up by the *International Herald Tribune*, which described the pullout as a major blow to the country's efforts to solve the power shortages that it was facing.⁵¹ The significance of Cogentrix's withdrawal can also be gauged by the fact that total direct investments in the Philippines in 1989 were only \$445 million.⁵² The plant that Cogentrix planned to build was expected to cost \$340 million. Thus, Cogentrix's withdrawal reinforced concerns about the investment climate in the Philippines. In an article appearing in the *New York Times* the same day as the *Tribune's* piece, President Bush's envoy to the Philippine Assistance Program, Elliot Richardson, stated that the Philippines was failing to promote itself to big companies and that it should work harder to encourage investments from abroad.⁵³

At the NPC, Cogentrix's withdrawal was viewed very differently. Staff at the utility claim that they were committed to seeing the project through and that Cogentrix backed out at a critical stage in the negotiations. As a result, there are strong feelings of resentment. Staff at the utility feel that they were "burned" by Cogentrix's withdrawal.⁵⁴ The fact that the Batangas project had been incorporated into the NPC's power development program and appeared in the 1989 Annual Report lends support to these claims. The Cogentrix withdrawal reinforced concerns that developers can withdraw from projects at any point in the process.

⁵¹"U.S. Firm Ditches Manila Contract," *International Herald Tribune*, Saturday-Sunday, July 7-8, 1990. For an overview of the issues and controversy behind the petrochemical facility see: Rigoberto Tigiao, "Petrochemical Stew," *Far Eastern Economic Review*, August 17, 1989, p.60-61.

⁵²*Key Indicators of Developing Asian and Pacific Countries*, Vol. XXI, July 1990, Asian Development Bank, p. 276-277.

⁵³"Philippines Given Advice," *New York Times*, July 7, 1990.

⁵⁴NPC staff, personal communication, March 26, 1991.

Yet, just as the Cogentrix withdrawal was creating waves in the press in the summer of 1990, Hopewell was nearing completion of the civil works for the Navotas project. In July 1990, Hopewell was also selected by the NPC to construct the Philippine's largest coal-fired plant in a joint venture with Asea Brown Boveri. The 700 MW plant is to be built in San Juan, Batangas is expected to cost approximately \$800 million and be completed in 1994.⁵⁵

Comparing the experience of Hopewell and Cogentrix offers insight into the complexities of implementing private power projects, the tensions involved in negotiating agreements and the important play-off between corporate strategy and the process of obtaining approvals from the government for the projects. However, before examining why the Navotas project went forward while the Batangas project did not, it is useful to present a brief background on the two companies and the projects they proposed.

Hopewell Holdings

Hopewell Holdings of Hong Kong is a large multinational corporation. The firm has 34 principal subsidiaries concentrating in property development and civil engineering throughout Southeast Asia. In 1990, the company reported an after tax-profit of about \$80 million, or close to half of Cogentrix's total sales for the same year.⁵⁶ The Managing Director of Hopewell is Gordon Wu, who owns 40 percent of the company. His ambitious infrastructure projects throughout Asia including a large mass transit scheme in Bangkok and a highway between Canton and Hong Kong has earned him the title of Asia's Mr. Fixit.⁵⁷

⁵⁵Roel R. Landingin, "Hopewell, ABB to build power plant in Batangas," *Daily Globe*, July 10, 1990.

⁵⁶Hopewell Holdings Limited, 1990 Annual Report.

⁵⁷Michael Taylor, "Can-do Wu: Hopewell chief's big ideas are sounder than they appear," *Far Eastern Economic Review*, Oct. 25, 1990, p. 47.

Hopewell also holds claim to building the first BOT power plant in the world. The 700 MW Shajiao "B" power station had its origin in the China Hotel, a 1,200 room hotel complex and shopping arcades in Guangzhou that Hopewell completed in December of 1983. Recognizing that this development would consume 150 MW of power or nearly 2 percent of the city's total supply, Hopewell entered into a joint venture with the Japanese trading company Kanematsu-Gosho to build the plant. The massive undertaking, involving 50 sub-contractors, was conceived in 1979, the Letter of Intent was signed on March 4, 1984 between the local state-owned power company, and the formal contract was signed on March 8, 1985. The 700 MW (2 x 350) plant is located in Shajiao, Guangdong Province, about 100 km west of Hong Kong. Hopewell Power (China) designed, constructed and financed the entire \$512 million project and will transfer it to the local state-owned utility after a ten year co-operation period. So now, rather than consuming 2 percent of the city of Guangzhou's energy supply, Hopewell presently supplies 14% of the total electricity requirements of Guangdong Province, which has a population of over 61 million.⁵⁸ Hopewell is now negotiating for the largest coal-fired power station in China, a 1,320 MW (2 x 660) joint venture with Guangdong General Power Company. The State Planning Committee gave its official approval for this second project in June 1990.

The 200 MW (3 x 70) gas turbine peaking plant that Hopewell built in the Philippines was small in comparison to these projects. The total cost for the plant, which is located in the Navotas Fishing Complex near Manila, was \$45.5 million. The project was financed with equity and debt provided by Hopewell, Citicorp, the Asian Development Bank and the International Finance Corporation. The power purchase price for the project was fixed until the end of the 12-year cooperation period, when the plant will be transferred to the NPC. During the cooperation period, fuel for the plant is

⁵⁸"700 MW Shajiao 'B' Power Station, Guangdong Province, The People's Republic of China," brochure, Hopewell Power (China) Ltd., April 29, 1988.

provided by the NPC without charge. Since Hopewell does not provide its own fuel, the project is considered an energy conversion plant and not a utility. This was significant for Hopewell for it has allowed the company to fall outside the bounds of the Philippines Public Service Law, which sets a 12% ceiling on the rate of return permitted on a utility rate base.

Cogentrix, Inc.

Cogentrix, Inc., based in Charlotte, North Carolina, is significantly smaller than Hopewell. As a medium-sized private company, it is considered one of the success stories to emerge out of the 1978 PURPA legislation. In 1989, just six years after it was started, Cogentrix was named the fastest-growing private company in the country according to *Inc. magazine*.⁵⁹ Cogentrix's sales jumped from \$51 million in 1987 to \$130 million in 1988 as projects came on line. By 1989, Cogentrix had built 7 coal-fired cogeneration plants totalling 494.5 MW/270,000 lb/hr of total capacity and had four projects under construction totalling 330 MW/250,000 lb/hr. The financing for these plants totaled \$520 million.

The company currently employs about 400 people, but had rather rather humble origins. The firm was started by George Lewis, who, seeing the growing potential of cogeneration as a business opportunity, and unable to convince the engineering consulting firm he worked for to enter the cogeneration business, left his job and started Cogentrix with a personal investment of around \$250,000.

Part of the reason Cogentrix was able to finance its power projects with so little equity lies in the nature of PURPA contracts. Power purchase contracts negotiated under

⁵⁹Edward O. Welles, "Full Steam Ahead: How Cogentrix rode the energy crisis all the way to the top of the list," *Inc. Magazine*, Vol 11, No. 12, 1989, p. 78.

PURPA basically provide guaranteed revenues for the life of a project, usually 20 years. As a result, Cogentrix was able to raise credit in the early years against the financial viability of the projects that it proposed, instead of its own financial position. Cogentrix has been able to finance projects as large as \$90 million with no equity investment or 100 percent debt.

The firm prefers to build plants fired by coal because of its relatively stable price and supply reliability. Cogentrix was able to gain a competitive advantage in the emerging industry by standardizing its plant design. The firm was able to reduce the time required to plan and build a plant to almost half of the industry average. Referring to the advantages of standardizing design, Lewis has said that he wanted Cogentrix to become the "the McDonald's of the power business."⁶⁰

The project that Cogentrix proposed for the Philippines was a 220 MW (4 x 55) coal-fired cogeneration facility. It was Cogentrix's first project outside of the United States and also twice as large as any other project the the company had built. It was to be located adjacent to the Caltex Refinery in San Pascual in Batangas, which planned to buy approximately 15- 40 MW of steam from the plant. Total project costs were expected to be \$340 million with a pay-back period of 10 years. Construction was scheduled to take 18 months for the first unit (55 MW) and a total of 22 months for all four units to come on line. It would have consumed approximately 1 million metric tons of coal annually. The consortium which Cogentrix headed included Foster-Wheeler, Detroit Stoker, and General Electric, as well as Southeast Asian Service & Maintenance, AG&P Philippines and private Philippine investors to be syndicated by the Development Bank of the Philippines. The International Finance Corporation and the Asian Development Bank were also considered potential sources of financing.

⁶⁰Erle Norton, "Cogentrix Steamrolls to Inc.'s No. 1," *The Business Journal of Charlotte*, December 4, 1989.

Project Time Line

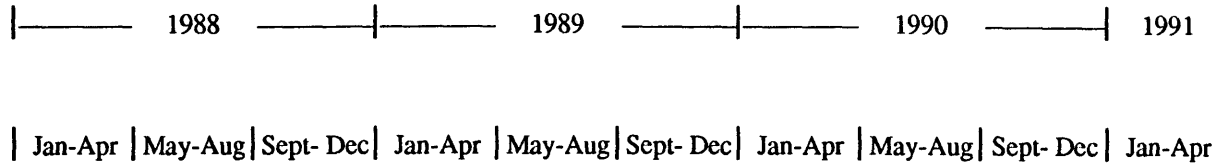
The negotiation process for the Hopewell and Cogentrix projects can be separated into several major phases (Diagram 1). The first was to obtain a Letter of Understanding with the NPC. This letter contains the basic parameters of the project and the price for which the power will be purchased. Both firms submitted their unsolicited proposals to the NPC in 1988; Hopewell in April while Cogentrix in December. Both companies had approached the NPC earlier than this date; however, these contacts did not involve formal proposals, but rather efforts to determine the NPC's receptivity to their prospective projects. As can be seen from the time line that has been reconstructed, Hopewell was able to secure a Letter of Understanding relatively quickly. Cogentrix, on the other hand, did not have a Letter of Understanding with the NPC until 14 months later.

Once the Letter of Understanding was signed, Hopewell and Cogentrix negotiated draft project contracts with the NPC. These contracts embodied the obligations and rights of the parties to the agreement, including the construction timetables, operating parameters, fuel supply, payment schedules, foreign exchange, and performance undertaking by the Republic of the Philippines. Hopewell drew up this contract with the NPC in summer of 1988. Cogentrix and the NPC drew up their draft contract with the NPC in the spring of 1990.

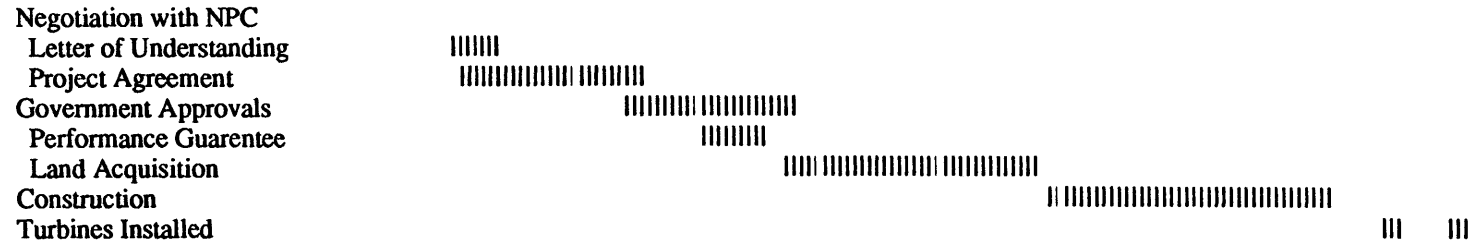
After the price structure had been reached and draft agreements were negotiated, the NPC then submitted the documents to the appropriate government bodies for review. The review process involves a project approval component and a financing approval component. Project approval is obtained from the National Economic Development Authority (NEDA) Board upon the recommendation of the Investment Coordinating Council (ICC). This recommendation is based on an economic and environmental analysis of the projects. The financing plan contained in the draft project agreement was

Diagram 1

Navotas and Batangas Project Time Lines



Hopewell/ Navotas



Cogentrix/ Batangas



reviewed by the Inter Agency Committee for the Review of Foreign Loan Documents (IAC), which is made up of the Department of Finance, the Central Bank and the Department of Justice with the lead agency for the proposed project, in this case the NPC, serving as the ad hoc member. Since the BOT concept was new and financing arrangements for BOT private power projects was not well developed, the IAC review lead by the Department of Finance was critical for both Hopewell and Cogentrix.

Hopewell entered the review process for the Navotas project around August 1988. Although Hopewell had wanted to sign a contract in September, negotiations extended through October 1988. In November 1988, Hopewell signed a contract with the NPC. Financing was approved by the Central Bank shortly thereafter. As can be seen from the project time line, there was significant delay at this point. The problem arose in securing the site for the project; it took approximately six months for the Hopewell, the NPC and the Fishing Authority to work out the arrangements for leasing the reclaimed land owned by the Fishing Authority. The civil works for the project were completed in mid-1990 and the first of three turbines was in operation by August 1990, with the last turbine coming on in January 1991.

Cogentrix, in contrast, did not even make it through the review process. The firm decided to end its Letter of Understanding with the NPC after the first round of comments made by the Department of Finance on the draft project contract.

The next chapter explores the differences between the two projects and offers several reasons to explain why Hopewell's Navotas project went forward while Cogentrix decided to pull out of the Batangas project.

Chapter 5. Why Hopewell Succeeded and Cogentrix Did Not

Three factors help to explain why the Hopewell Navotas project went forward while the Cogentrix Batangas project did not: 1) the time spent negotiating price; 2) contract negotiations and the government review process; 3) the legal structure of the projects; and, 4) each firm's investment strategy.

Negotiating Price

A critical difference between the two projects concerned the amount of time that it took to the company to sign a Letter of Understanding with the NPC. The Letter of Understanding was important because it established the basic terms and conditions of the projects, particularly the price. Once the Letter of Understanding was signed, the parties could begin negotiations on a draft contract agreement. In Hopewell's case, a Letter of Understanding with the NPC was reached relatively quickly and negotiations over the project with the NPC agreement began in May 1988, one month after Hopewell submitted its Letter of Intent. However, in Cogentrix's case, a Letter of Understanding was not finalized for a considerable period of time. Cogentrix's first letter of intent was submitted in December of 1988; but it was not until January 1990 that a Letter of Understanding was signed. As a result Cogentrix and the NPC did not start negotiations on the draft project agreement until over fourteen months after Cogentrix submitted its first Letter of Intent.

One source of Hopewell's success lay in the equipment that the company identified for the project. Rather than submitting an offer based on new equipment, Hopewell located second-hand Westinghouse gas turbines and transformers which had been used by the Tri-State Republican River Generating Station in Wray, Colorado. The cost of these turbines and associated equipment was about \$24 million. By sourcing used equipment, Hopewell was able to package a proposal with a total cost of \$45.5 million, far lower than a project NPC could build on its own. By the rules and regulations governing the NPC charter, the utility is barred from purchasing used equipment. As a result, NPC estimated its costs to be \$79.5 million or 2.489 P/Kwh, considerably more than the Hopewell proposal of 2.22 P/Kwh.⁶¹

The history behind the Cogentrix - NPC purchase price negotiations are much more complex, involving over a year of proposals and counter proposals. The negotiations came to a halt at several stages only to be revived again by a new set of proposals. Between December 1988 and July 1989, Cogentrix submitted three separate letters of intent to the NPC, each time revising the project's price structure. In January 1989, Cogentrix lowered its price offer from 1.6 P/Kwh to 1.3 P/Kwh by enlarging the proposed plant capacity from 110 MW (2 x 55) to 220 MW (4 x 55). The price was lowered again in April, 1989 to 1.28 P/Kwh. The NPC, however, declined each of these offers stating that Cogentrix had to match or better an avoided cost calculated to be 0.826 P/Kwh.

During this period, there seems to have been some confusion at the NPC about how to treat Cogentrix's proposal and where it fit into the utility's power development program. For example, the Cogentrix proposal was first considered as a Block Power Production Facility (BPPF), but this was later revised and the proposed plant was categorized as a Private Sector Generation Facility (PSGF). The firm was also told that

⁶¹NPC avoided cost data, Treasury Planning Services Division, September 20, 1988.

its proposed project would have to be a part of a formal bidding process; however, this was never carried out. There seems to have been further confusion about where Cogentrix was to obtain accreditation for the project. Initially, Cogentrix was referred by the NPC Board to the Office of Energy Affairs, only to be referred back to the NPC the following month. Cogentrix was eventually given temporary accreditation as a PSGF under the Cogeneration Facility Classification in June of 1989.

Throughout this period, Cogentrix asserted that the NPC's avoided cost calculations should take into account the reliability of the cogeneration plant and the savings that would be gained by its ability to bring the first 55 MW unit on line in 18 months. Cogentrix also suggested that additional cost reductions could be obtained once financing was put in place; however, further steps in this direction could not be taken without a Letter of Understanding signed by the NPC setting forth the general terms and conditions for the project. The NPC responded that it could not accept general terms and conditions until an agreement was reached over the price of the power to be purchased.⁶² Nevertheless, Cogentrix's position seems to have had some affect, for in July of 1989, the NPC revised its avoided cost formula by adding the cost of leasing and operating gas turbines for 1.5 years to its previous avoided cost of 0.826 P/Kwh. Yet, the new rate of 1.05 P/Kwh was still significantly lower than Cogentrix's revised offer of 1.28 P/Kwh.

By this time, the Batangas project had the support of a number of influential sources. For example, Cogentrix's partners in the Philippines gained the backing of a number of politicians in the Philippine House of Representatives, including the speaker and the chairmen of the Trade and Industry, Energy, Public Works, and Economic Affairs Committees. In addition to offering legislative support for the project, the Congressmen sent letters to the NPC and other government agencies urging that the project be treated as expeditiously as the Hopewell project had been. The U.S.

⁶²W.R. de la Paz, "Private Power: The Philippines Experience," unpublished paper, Jordan Private Power Conference, Electricity Options for the Future, December 12, 1989. p. 15.

government also tried in a number of ways to encourage the NPC to accept the project. For example, in August 1989, U.S. AID sponsored a "study tour" in which members of the NPC's BOT committee were brought to visit one of Cogentrix's 110 MW plants in Virginia and to undertake further discussions over the proposed plant in the Philippines. U.S. AID agreed in principle to provide U.S.\$30 million to the NPC for the infrastructure and interconnection costs associated with Cogentrix's proposed plant. The U.S. Embassy also made phone calls to the NPC on behalf of the Batangas project.⁶³

Gradually the NPC's position began to soften. In October, NPC officials agreed to sign a Memorandum of Understanding in place of the Letter of Understanding that Cogentrix was requesting. The signing closely preceded a trip that President Aquino made to the United States and a presentation of the project which was made for her in New York. It was also about this time that U.S. AID to provide the NPC with financial assistance for the infrastructure charges associated with the plant. By November, there were expectations that an agreement could be reached in December when executives from Cogentrix were scheduled to return to the Philippines. However, these plans were disrupted by the attempted coup that took place that month.

Finally, in January of 1990, executives from Cogentrix returned to the Philippines and concluded the Letter of Understanding that they had been seeking for over a year. The final price that the NPC and Cogentrix agreed to was P1.6438 or about twice the avoided cost of P 0.826 that the utility had quoted at the start of the negotiation process. Cogentrix started at P1.6 dropped to as low as P1.28, but ended with an agreement of P1.6438. This picture is somewhat distorted by the devaluation of the peso and affects of inflation. Cogentrix did make concessions when viewed in dollar terms. The company dropped its initial asking price in dollars from U.S. 6.12¢ in December 1988 to U.S.4.5¢ in January 1990.

⁶³NPC official, personal communication, April 2, 1991.

The Review Process and Contract Negotiation

While establishing a price that is acceptable to the NPC and the developer is central to the viability of a project, it is not sufficient. Equally important are the terms and conditions embodied in the project agreement drafted between the NPC and the developer. Included in this document are the power plant's operating parameters, fuel supply specifications and other important technical issues. It also covers critical financial and legal matters such as the schedule and terms of payment, foreign exchange provisions, contract jurisdiction and government guarantees. For the developer, this document ultimately determines the attractiveness and viability of the project. It not only establishes whether the project will receive a favorable return on investment, but whether or not the project can be financed.

The government, however, views the document quite differently. For government agencies, reviewing the contract provides an opportunity to make changes that ensure that the benefits of the project outweigh the costs to the economy and that the contract is consistent with the laws and policies of the Philippines. Since the Hopewell and Cogentrix projects were over P500 million and both companies were seeking guarantees from the government, their contracts were subject to review and approval by the ICC and the IAC. The ICC is largely concerned with evaluating the economic feasibility and desirability of the project while the IAC is concerned with assessing the financial and legal implications of the contract. Thus, for the government, the project agreement is equally critical in that it defines the country's foreign exchange exposure and other obligations created by the project.

Negotiations over the project agreement between Hopewell and the NPC for the Navotas project began in May 1988, and a draft was drawn up sometime in August. As

the lead agency, the NPC was responsible for coordinating the review process. In the review process, the Department of Finance and other members of the IAC objected to number of key provisions in the draft contract. For example, the Department of Finance objected to provisions which made all fees payable in foreign exchange, arguing that a portion should be denominated in pesos since the project would have local expenses.⁶⁴ The most significant impasse concerned the government guarantee that Hopewell was seeking. Without a guarantee from the government, Hopewell would not have been able to obtaining financing for the project. Yet, Executive Order 215 explicitly rules out direct government guarantees to private parties. In fact, the perceived ability of the private sector to build and operate power plants without direct government support clearly underpins the intent of the law: The critical passage reads:

... the generation of electricity by the private sector can provide a means of increasing power capacity to meet the projected increase in power demand in the future without in any way requiring financial assistance or guarantee from the government.⁶⁵

Hopewell's financial and legal counsel in the Philippines and from Hong Kong met directly with members of the IAC on at least three occasions to work out these issues. Eventually, a compromise was reached in which the national government would guarantee the NPC's contractual obligations to Hopewell.⁶⁶ In this way, rather than being a direct government guarantee to a private firm, the guarantee was made indirectly through what has become known as a performance undertaking of the NPC's contractual obligations. This arrangement was sufficient to satisfy Hopewell and its creditors. These negotiations were concluded in October 1988, and the final project agreement was

⁶⁴Staff, Department of Finance, personal communication, April 4, 1991.

⁶⁵Executive Order 215, Malacanang, Manila, July 14, 1987.

⁶⁶Augusto B. Santos, "Private Sector Participation in the Provision of Infrastructure Facilities in the Philippines," unpublished paper, Seminar on Developing Physical and Supporting Infrastructure for Industrial Restructuring, Kuala Lumpur, Malaysia, March 4-9, 1991.

signed the following month, or eight months after submitting their original letter of intent to the NPC. The Navotas project received approval in principle for interim financing from the Central Bank in December 1988 and official approval in February 1989, or eleven months after their initial Letter of Intent was submitted.

The review process for Cogentrix's contract with the NPC took a very different course. After the Letter of Understanding was signed between Cogentrix and the NPC in January 1990, Cogentrix executives returned to the Philippines in March to negotiate the contents of the project agreement. The project agreement was drawn up between the NPC and the Batangas Cogeneration Company (BCC), an affiliate that Cogentrix established in the Philippines implement the project. A draft document was completed two weeks later. Again, as the lead agency for the project, the NPC was responsible for coordinating the government's review process. In fact, the NPC had already started the process. The documentation necessary to evaluate the economic desirability of the project was submitted to the ICC in February. Finalization of the draft project agreement allowed the IAC review process to begin.

At this point, time was a critical issue to Cogentrix. By the end of March, it had been sixteen months since the initial formal proposal had been submitted to the NPC and two years since executives had first come to the Philippines to explore the feasibility of building a cogeneration facility for the Caltex refinery. There was great concern that the project receive the necessary approvals as quickly as possible. This concern was even incorporated in the Letter of Intent signed by the NPC. In the section covering Schedules and Milestones, the letter read: "Each party acknowledges that time is of the essence and that the drafting, negotiation and completion of a Power Purchase Agreement by the end of April 1990 is critical to the implementation of the Project..."⁶⁷

⁶⁷"Cogentrix-NPC Letter of Understanding," January, 19, 1990, p.3.

At this point, there were signs that the government might approve the project quickly. The country had just come out of the most serious of a string of coup attempts that seriously weakened confidence in the Administration. Congress had granted the President emergency powers, giving her authority to override many normal bureaucratic procedures. Moreover, Manila was entering a period of serious brown-outs, which led to the controversial workless-Monday policy. In this environment, a fast track approach with waivers and temporary permits may have appeared to be in the cards. A large power plant may not only have contributed to solving the power crisis facing Luzon, but may also have improved a badly shaken investment climate.

The fast track that the company was hoping for did not materialize. Rather than receiving a stamp of approval, the company received correspondence from the NPC on April 7, 1990, which from the perspective of Cogentrix executives raised serious concerns about the continued viability of the project. First, the comments only covered a partial review of the contract. Second, from Cogentrix's perspective the comments retreated from many points that they felt had been extensively negotiated with the NPC in March. Finally, it did not appear to include input from the Central Bank, which was critical to the issue of currency convertibility and the government's performance undertaking of the NPC contractual obligations. Anxious to expedite the process, Cogentrix requested a full review to be completed as soon as possible.

An additional fourteen pages of comments arrived during the second week of May 1990. Some of these comments were relatively minor changes in wording; however, others involved substantial revisions or additions of new language. In some cases, entire paragraphs were deleted. From the company's perspective, these comments further undermined the effectiveness of the contract and with it the chances of financing the project. Cogentrix was also informed at this time that studies necessary for an environmental compliance certification would take approximately 18 months to complete. Weighing these considerations and coming to the conclusion that the project could no

longer obtain a power contract that could be financed or meet the implementation schedule set out in January without a significant commitment of additional time and effort, Cogentrix's Board of Directors decided on May 11, 1990 to end the Letter of Understanding with the NPC.

In the Philippines, project supporters sought Presidential support to fast track the approval process; however, the President declined to intervene.⁶⁸ After May 11 1990, Cogentrix made an effort to continue pursuing the project on a more limited basis by forming a joint venture with a Japanese firm; however, this firm eventually decided not participate in the project. Without a joint venture partner to help distribute the risk and effort required to move the project forward, Cogentrix decided to end its effort in the Philippines and to concentrate on project opportunities in the United States and other countries. This decision was made in October 1990.

It is important to note that the review process that led Cogentrix to terminate its Letter of Understanding with the NPC looked quite different to the Department of Finance and other member of the IAC who played a part in the review. First, none of the agencies responsible for reviewing the project had taken part in the long price negotiation between Cogentrix and the NPC, nor had they taken part in the formulation of the project agreement that was drawn up in March. Up until this stage Cogentrix had dealt almost exclusively with the NPC. Consequently, while Cogentrix viewed the process at this stage in terms of years, key agencies like the Department of Finance had only seen the contents of the project documents weeks before Cogentrix ended its Letter of Understanding with the NPC. Second, the experience in evaluating large BOT power projects was limited. The only other project to have come this far was the Hopewell project, which was in many ways simpler than the Cogentrix's proposal. The Navotas project was more than seven times smaller in dollar terms, involved a shorter cooperation

⁶⁸"Cogentrix," *Business International*, May, 1990.

period, and was not complicated by a third party arrangement like the one that the Batangas project created with Caltex. Finally, although the project was large and could contribute to alleviating power shortfalls facing Luzon, it was not the only project that required evaluation; the Cogentrix contract, covering eighty pages of articles and annexes, had to be worked in among other project documents that had been submitted earlier in the year.

Officials reviewing the contract were also unaware of Cogentrix's concern about the lack of Central Bank comments. Although Cogentrix executives believed that the comments on the contract received up until May 9, 1990 did not include input from the Central Bank, the Central Bank had in fact participated in the review process.⁶⁹ When Cogentrix and the NPC concluded the draft project agreement in March, the NPC arranged meetings with the Department of Finance to have the document reviewed. The Department of Finance, in turn, informally consulted other members of the IAC, including the Central Bank, on specific areas of the contract where the Department of Finance felt it needed advice. Thus, while the Department of Finance was the principle reviewing agency, the review was not done in isolation.

Cogentrix's impressions concerning the lack of Central Bank participation appear to have come from a cover letter that the NPC sent to Cogentrix on May 4, 1990. The letter read:

We have completed a review of the draft Power Purchase and Operating Agreement between NPC and Batangas Cogeneration Company with the Department of Finance (DOF), and herewith attached is an advance copy of the summary of comments and suggested revisions to the contract as a result of said review and consultation.

So as not to hamper our meeting the target milestone date for the finalization of the contract documents, we thought it best to send you the comments ahead of the DOF's final review for your early action.

⁶⁹Staff, Department of Finance, personal communication, April 4, 1991 and May 9, 1991.

Since the letter only referred to the Department of Finance and a list of the government agencies that had been consulted in the review process was not included in the body of the comments, Cogentrix incorrectly reached the conclusion that the Central Bank had not taken part in the review process and that this meant that there might be further delays in the process. This misunderstanding provides a small but important example of the delicateness of the negotiation process and the ease with which misperceptions can be created. It was significant because the perceived lack of input from the Central Bank left Cogentrix uncertain about the government's willingness to guarantee payment in dollars, and thus the firm's prospects of financing the project.

More fundamental than the misunderstandings that took place concerning which government agencies participated in the review process were some of the legal problems that the Department of Finance identified with the BCC-NPC draft project agreement. One of these concerned the Uniform Currency Act of the Philippines and had important implications for the organizational structure of the Batangas project. While this is only one of the problems that the Department of Finance identified with the draft contract, it is important enough to explore in more detail.

Structuring the Project

A key concern that companies have in structuring a BOT project is insulating the parent company from liabilities and claims that might arise from the project. The typical way to do this is to establish a limited liability subsidiary to undertake the project. In any case, Philippine law requires foreign companies to establish local legal entities.

In addition to wanting to protect the parent company, investors also want guarantees from the government that there will be sufficient foreign currency available to meet their obligations to creditors and to repatriate profits. However, there are certain

legal restrictions that apply in the Philippines. The Uniform Currency Act states that, except in certain circumstances, any obligation contracted between two parties in the Philippines must be paid in pesos.⁷⁰ This means that if the Philippine-based project company signs a contract with the NPC, then any transactions or payments between the two parties must be denominated in pesos. Obviously, this is unacceptable for a foreign firm with debt obligations in hard currency and which also wants to repatriate profits.

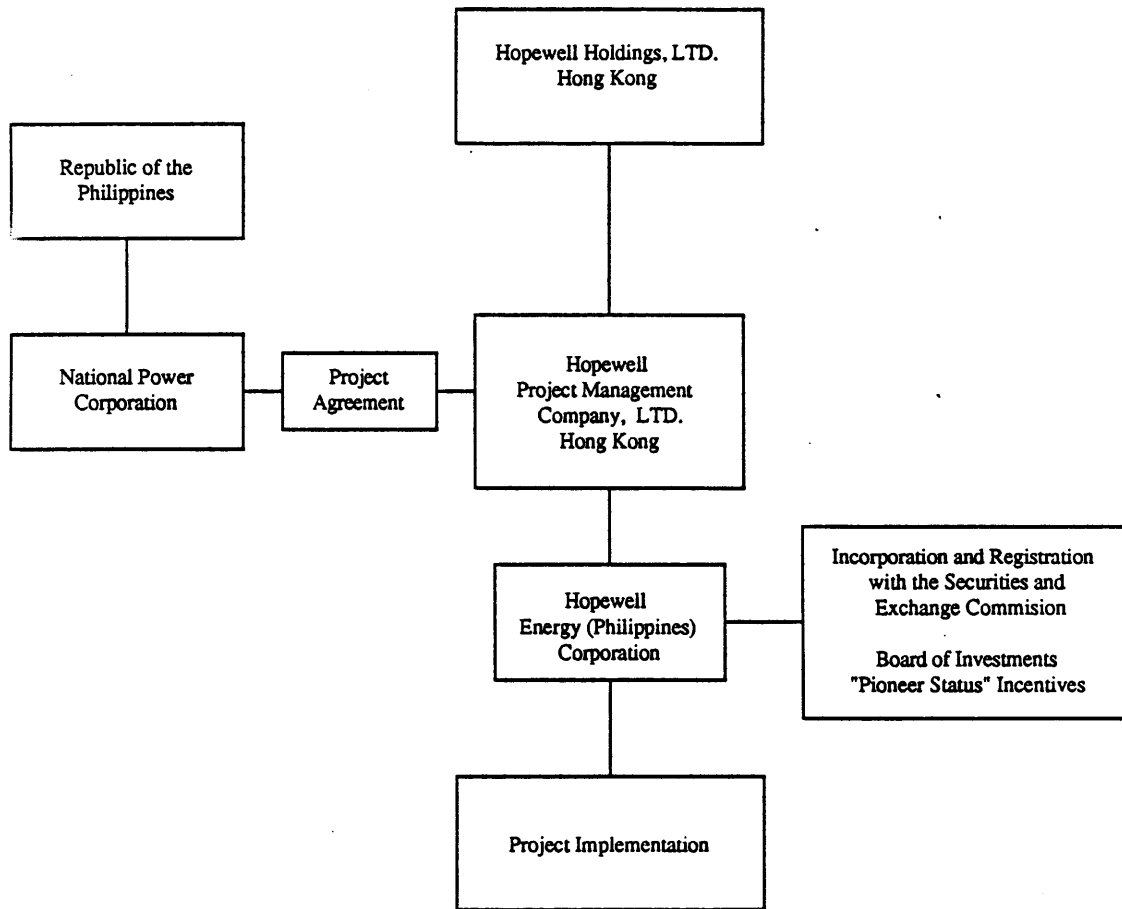
It is possible to overcome these foreign exchange and liability obstacles by creating a three-tier corporate structure consisting not only of the parent company and the required Philippine-based subsidiary, but also a second subsidiary based outside of the Philippines to take legal responsibility for the power project and satisfy the requirements of the Uniform Currency Act. This is what Hopewell did (Diagram 1). In May of 1985, Hopewell Holdings formed Hopewell Project Management Company Ltd. This limited liability company based in Hong Kong provided protection to the parent company Hopewell Holdings against potential claims arising from the project and allowed the project to meet its foreign exchange needs within the provisions of the Uniform Currency Act. Hopewell Project Management Company was assigned responsibility for formulating the project, securing financing, making equipment purchases and, most importantly, signing the project agreement with the NPC. The company was activated in March of 1988 in order to submit the Letter of Intent to the NPC for the Navotas project in April 1988.

Later in the year, after the project agreement was concluded with the NPC, Hopewell established Hopewell Energy (Philippines) Corporation to meet the Philippine requirement that foreign companies establish local legal entities. Hopewell also used Hopewell Philippines to secure "pioneer" status for the project from the Board of

⁷⁰An Act to Assure Uniform Value to Philippine Coin and Currency, Republic Act No. 529, (As amended by R.A. No. 4100) June 16, 1950. Section 1 (b).

Diagram 2

Simplified Organizational Structure of the Navotas Project



Investments, thereby gaining access to significant incentives. These incentives provided the project a waiver of the 60-40 rule on foreign ownership, a six-year tax holiday and full exemptions from customs duties and taxes. According to Philippine law, only a local company is eligible for "pioneer" status. In summary, by establishing a three-tiered corporate structure, Hopewell was able to insulate its parent company, satisfy its desire for foreign currency, and take advantage of a range of incentives offered by the Board of Investments.

In contrast to Hopewell, Cogentrix only established a single subsidiary, BCC, in the Philippines. The company did not create another subsidiary outside of the Philippines to serve as a shield and satisfy the requirements of the Uniform Currency Act. As it was, the draft project agreement between the BCC and NPC created legal problems. The Department of Finance alerted Cogentrix to the potential problems created by this contractual arrangement in comments dated April 24, 1990:

In the light of possible legal complications on account, among others, of the application of the Uniform Currency Act and repatriation of investments, it is recommended that the Agreement be executed by and between Cogentrix, Inc. and NAPOCOR (NPC). Similar to the Hopewell case, Batangas Cogeneration Company may be acceded to the Agreement by way of an accession agreement.

Alternatively, if Cogentrix wishes to retain the proposed contractual arrangement between BCC and NPC, then all fees will be paid in Pesos albeit part of the fees may be denominated in Foreign Exchange. Under this scenario, the payment of NPC of the fees using the exchange rate at the date of payment will satisfy NPC's obligation under the Contract. BCC will take care of its remittance requirements.⁷¹

Since Cogentrix did not have an intermediate company in place to shield it as Hopewell did, neither of these options were attractive alternatives.

As alluded to above, there are certain exemptions provided by the Uniform Currency Act. One of the exemptions is for high-priority economic projects, such as

⁷¹Comments on the Draft NPC-Cogentrix Agreement, April 24, 1990. p. 1.

power development projects financed largely through foreign funds.⁷² This is the provision that the Cogentrix agreement attempted to invoke in the draft contract between the BCC and the NPC. The relevant article reads:

Uniform Currency Act. NAPOCOR (NPC) acknowledges and warrants to OPERATOR that the Project constitutes an international industrial transaction within the meaning of the Uniform Currency Act of the Philippines, which transaction is necessary to permit the construction of a power plant in large part with foreign currency funds derived from sources outside of the Philippines.⁷³

However, according to the Act, the exception is to be determined by the National Economic Council (NEC). The NEC is the highest economic policy making body in the Philippines and is chaired by the President. As a policy making body, the NEC may make an exemption for a class of projects, however, it is highly unlikely that it would grant an exemption to the Uniform Currency Act for a single project.⁷⁴

The contractual arrangement between the BCC and NPC also created other problems. For example, in the section concerning the jurisdiction of the contract, the draft proposed by Cogentrix stipulated that, in the event a dispute between the Operator and the NPC could not be satisfactorily resolved, then the action could be brought before the courts in Sydney, Australia. The comments that Cogentrix received from the Department of Finance stated that this could only take place if the contract was established between the NPC and Cogentrix. If BCC was the contractual party, then, as a Philippine entity, it would have to submit to the jurisdiction of the proper courts in the Philippines. While the foreign exchange and legal jurisdiction issues are only two of the concerns

⁷²An Act to Assure Uniform Value to Philippine Coin and Currency, Republic Act No. 529, (As amended by R.A. No. 4100) June 16, 1950.

⁷³Power Purchase and Operating Agreement Between Batangas Cogeneration Company and National Power Corporation, Article 7.6.7, Draft, March 16, 1990.

⁷⁴Staff, Office of the President, May 23, 1990.

raised by the review of the BCC- NPC contract, they underscore the kind of critical legal issues that had to be resolved for the Batangas project to go forward.

This review of the contract review process challenges the widely held view that "bureaucratic delay" was responsible for holding up and eventually killing the Batangas project.⁷⁵ The "delay" in the process arose from an inability to reach a price agreement with the NPC and had little to do with the rest of the government. Key government agencies, like the Department of Finance, were given access to relevant project documents less than two months before Cogentrix ended its Letter of Understanding with the NPC. To attribute the fate of the Batangas project to bureaucratic delays is a misrepresentation of the facts of the case.

Critical questions do emerge, however, about where the responsibility and burden of obtaining the necessary approvals for the project properly rests. In its letter to the NPC explaining its reasons for withdrawing from the project, Cogentrix expressed their frustration that reviewing officials retreated from points that had already been heavily negotiated with the NPC in March 1990. Cogentrix was told by the NPC that the contract would be reviewed and the company accepted this. Cogentrix, however, clearly was not prepared for the scope or depth of the comments on the contract, raising a fundamental question: What was the NPC's responsibility in helping Cogentrix prepare a draft contract that would pass the IAC review process? Clearly, the NPC can not be expected to foresee every point of concern to the Department of Finance and other reviewing agencies, but it does seem reasonable to assume that confusion should not arise over issues as fundamental as the Uniform Currency Act provisions and the jurisdiction of the contract. Was the NPC responsible for explaining these kinds of

⁷⁵A typical article appearing the press in May 1990 when rumors started that Cogentrix may be pulling out began: "Excessive 'red tape' has prompted an American firm to seriously reconsider pushing through with its \$330 million coal-fired power project in Batangas..." Rex Aguado, "US firm may pull out power project," *Chronicle*, May 12, 1990. It is worth noting that nearly all the press coverage blaming bureaucracy requirements for delaying the project originated from interviews with the president of Caltex Philippines, the proposed industrial host for the Batangas project.

issues to Cogentrix as the lead government agency for the project? Or was Cogentrix responsible for researching these issues as the principle developer of the project?

Investment Strategy

A final factor which distinguishes the Navotas and Batangas projects relates to each company's investment strategy. For Hopewell, the Navotas 200 MW plant at Navotas was considered a pilot project. The real objective was a 700 MW (2 x 350) coal-fired plant that will be located in San Juan, Batangas.⁷⁶ In fact, the proposal for a large coal-fired plant was included as part of the initial letter of intent that Hopewell submitted for the Navotas project in 1988. NPC officials were therefore aware of Hopewell's interest in building a much larger plant throughout the negotiations for the Navotas project.

The Navotas plant was critical not only for introducing the concept of BOT to the NPC, but also for building confidence in the banking community that Hopewell could put together a successful BOT project in the Philippines. Although Hopewell had demonstrated that it could build a large BOT project in China, the BOT concept was still considered new and risky, particularly in a country with as poor a credit and political risk rating as the Philippines. The experience of stalled BOT projects in Turkey and elsewhere reinforced these perceptions.⁷⁷ Moreover, Hopewell still had to bring on board two key players, the Asian Development Bank and the International Finance Corporation. Hopewell would be unable to secure financing from these sources for the

⁷⁶Eduardo Bautista, President, Hopewell Energy (Philippines) Corp., personal communication, April 1, 1991.

⁷⁷See, for example, Jean-Jacques Lecat, "An Overview of BOT Proposed in Turkey," in March Augenblick and B. Scott Custer, Jr. "The Build, Operate and Transfer ('BOT') Approach to Infrastructure Projects in Developing Countries," Policy, Research, and External Affairs, Working Paper, World Bank, August 1990.

San Juan project, expected to cost \$800 million, unless it first started with a smaller project and demonstrated that the BOT concept was workable and profitable.

Thus far Hopewell's strategy appears to be working. NPC issued a request for proposals for the San Juan plant in November 1989. Fourteen companies pre-qualified to bid for the project, including Hopewell in a joint venture with Asea Brown Boveri (ABB) Energy Ventures Inc. Hopewell/ ABB won the bid in July, 1990 and are now in the final stages of negotiations. Thus, it appears as if Hopewell will not only have the first BOT project in the Philippines but the second one as well, this time largest power plant in the country.

Cogentrix does not appear to have had a similar long-term investment plan for the Philippines. In fact, Cogentrix did not identify the project with Caltex on its own. The origins of the project go back to the middle of 1987 when a group of investors began exploring the possibility of undertaking the 300 MW coal-fired plant (Calaca II), which the NPC had proposed in the 1970's but had been unable to build given its financial constraints. The plans were altered the following year in favor of a cogeneration facility and Cogentrix was tapped by these investors to pursue the project. As has already been mentioned, the Batangas project Cogentrix's first overseas experience and when the plans were enlarged in the beginning of 1989, it became the twice as large as any plant the firm had built.

In summary, the Hopewell and Cogentrix project proposal and review processes took very different paths. Hopewell identified a project that could contribute to the NPC's immediate capacity shortfall, and, by sourcing used equipment, was able to offer a price that was acceptable to the utility. As a result, Hopewell entered the government review process relatively early in the overall development of the project and, therefore, was willing to revise milestones and participate in the process of negotiation with the Department of Finance to reach a contract that was acceptable to all sides. Cogentrix, on the other hand, proposed a project that the NPC appears to have felt was too expensive,

and negotiations dragged on for over a year until a price agreement was reached. As a result, Cogentrix did not enter the review process until two years into the development of the project, leading the firm to have serious concerns about further delays. These concerns were compounded by the Department of Finance's comments on the draft project agreement which Cogentrix felt retreated from points they had already negotiated with the NPC. In the end, Cogentrix came to believe that the project could not be financed or meet the schedule that Cogentrix considered critical to the successful implementation of the project.

Chapter 6. Conclusions

A number of observations can be made about recent private power policy initiatives in the Philippines. Important issues to consider include the process of reviewing and implementing specific project proposals; measures that can be taken to improve this process; and the larger context in which private power policies are taking place.

Characterizing the Process

Executive Order 215 and associated implementing Rules and Regulations provide a framework for allowing the private sector to build, own and operate power plants in the Philippines. However, as the Hopewell and Cogentrix cases demonstrate, this framework has been inadequate to allow the smooth implementation of the NPC's private power program. Early experience suggests that there are a number of specific issues that require attention to facilitate the process of implementing private power projects.

First, there were high transaction costs associated with the process. The learning curve that Hopewell and Cogentrix faced was steep. In Hopewell's case it took several months to work out the arrangements for an acceptable government guarantee. In the Cogentrix case, the process of settling on a price lasted more than a year. Such delays discourage investment by creating barriers to entry and undermine the benefits of competition that are supposed to result from greater private sector participation in the power sector.

Second, the absence of clear rules and information about the terms and conditions that apply to private power projects has made it difficult for developers to know what conditions are acceptable to the NPC and the government. Unclear rules and insufficient information created uncertainty, frustrated corporate planning and negatively affected perceptions regarding the integrity of the process. Some of those who are less familiar with the details of the Hopewell and Cogentrix negotiations believe that that Hopewell was somehow the beneficiary of benefits from the government that were not were not available to Cogentrix.⁷⁸

Third, there were complications in reaching a price agreement. In the Cogentrix case, there was no apparent mechanism available for resolving price level disputes with the NPC. Without a satisfactory mechanism to resolve this issue, the process became politicized. As the price negotiations wore on with Cogentrix in 1989, the NPC found itself under increasing pressure to accept the project from various proponents including Philippine Congressmen, U.S. AID, and the U.S. Embassy. Some of this pressure was in the form of typical letters from politicians urging that the project be handled as efficiently and expeditiously as possible. The NPC even received phone calls from the U.S. Embassy concerning the status project.⁷⁹

Finally, there are important institutional issues raised by the early experience with the process. Executive Order 215 created new tasks and responsibilities for government agencies, particularly the NPC. For example, project proposals from private developers must be evaluated; new techniques, like avoided cost, must be learned; and, a delicate negotiation process with private developers must be managed. This requires a major role redefinition, the development of a training program and a substantial commitment of staff time.

⁷⁸In the course of this study, I found that there is a great deal of misinformation concerning the reasons why Cogentrix's efforts in the Philippines failed, particularly in the United States.

⁷⁹NPC Staff, personal communication, April 2, 1991.

The early experience with private power in the United States under PURPA faced similar obstacles. It took some time before the institutional procedures were put in place for setting rates and other terms of sales between the developer and the utility. However, there were certain measures that provided compensation to overcome institutional deficiencies. During the first several years of PURPA implementation, the law provided grants to state public utility commission to hire additional staff to deal with PURPA related implementation issues.⁸⁰ Executive order 215 made no provision for additional resources.

Perhaps the most important issue regarding the implementation process and, indeed, the entire private power policy is the distinction between *allowing* private sector development and *encouraging* private sector development. If one were to make a broad comparison, this may be the best way to characterize the difference between PURPA implementation in the United States (with some variation from state to state) and the implementation of Executive Order 215 in the Philippines.

A statement by the OEA's Head of Planning Services at a conference sponsored by U.S. AID in Thailand is characteristic of the cautious attitude of Philippine officials regarding private power:

The idea of private participation in the power sector was initiated because of the (large) investment required by the government to finance the power expansion program. Not a large part of this can be provided by the private sector, but we would like to start and see how much they can provide.

As suggested in Chapter 2, the Philippine government is primarily interested in the contribution that private power can make to alleviating the power crisis. The burden is on the developer to prove that the project can make this contribution.

⁸⁰Michael D. Devine, et. al. "PURPA 210 Avoided Cost Rates: Economic and Implementation Issues," *Energy Systems and Policy*, Vol. 11, 1987. p.94.

Part of Cogentrix's frustration appears to be a reflection of this difference. In moving from power development in the United States to the Philippines, Cogentrix experienced a fundamentally different government perspective on the role of private power. Cogentrix executives expected the NPC to assume a large part of the responsibility for obtaining the necessary government approvals for the project.

Hopewell, on the other hand, appears to have better understood the Philippine government's perspective of private power. According to Edgardo Bautista, President of Hopewell Philippines, obtaining approvals from the bureaucracy in and of itself was not a major problem. Rather, the critical issues were: 1) gaining the acceptance of the BOT concept at the NPC; and, 2) identifying government approvals needed to make the project viable and bankable.⁸¹

Broader attitudes about private power may also reflect a lack of institutional motivation for support of new private power policies. Much is made about the opportunity costs born by executives of private firms attempting to develop BOT power projects.⁸² But the same is true for the NPC. The time and effort of NPC senior management allocated to processing private power project proposals has been high. Yet, the management of the utility receives little or no compensation for these efforts. Obviously the power crisis provides some motivation. But what are the specific incentives for the NPC to obtain government approvals on behalf of private developers who receive all of the rewards?

⁸¹Edgardo A. Bautista, personal communication, April 1, 1991.

⁸²Joseph W. Ferrigno, III, "The Successful Packaging of BOT Projects," unpublished paper presented at Private Sector Participation in Power Through BOOT Schemes, World Bank Group Seminar, April 23-24, 1990, p. 8.

Improving the Implementation Process

Detailed solutions to the problems identified with the private power planning process are beyond the scope of this paper, but a few suggestions can be made about aspects of the process that require improvement and/ or future study. First, the sequence and timing of the steps in the approval process need to be better defined. For example, since the finance issues surrounding BOT projects are so important, there may be advantages of bringing the Department of Finance into the process earlier. Second, clear guidelines are needed for developers. This could contribute to making expectations clear and reduce transaction costs and the uncertainty of the process. One way to do this would be to introduce standard contracts which specify a structure and provisions that the government is willing to accept. Finally, steps should be taken to restructure institutional incentives to ensure that the NPC and other relevant government organizations have the capacity and motivation to implement private power policies more effectively and efficiently.

It is important to recognize that private power is a new policy. The NPC and other government agencies have been going through a learning process. Hopewell and Cogentrix were the first two companies to seriously pursue large projects under Executive Order 215. As a result, it was inevitable that they encountered problems in the implementation process. It is also important to take the larger context in which private power is taking place into consideration when considering ways of improving the implementation process. For example, will Executive Order 215 move the country in a reasonable direction? What is the appropriate role for donors like U.S. AID to play in such efforts? Finally, is privatization the answer to the power shortages in the Philippines and the NPC financial problems? The origins and early experience of private power in the Philippines suggest that each of these are important questions that must be explored in any efforts to improve the process.

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