PN-ACM-808

STUDY ON RESTRUCTURING OF THE FINANCIAL LIABILITIES OF THE POWER SECTOR--

Final Report

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AGILE

a consortium of:

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I. BACKGROUND

The National Power Corporation (NPC) is the main player in the Philippine's electricity supply industry. It generates electricity from its own power plants and purchases electricity from Independent Power Producers (IPP) whose capacity it has contracted. It also owns the transmission network. Electricity is sold wholesale to distributors composed of private electric utilities and rural electric cooperatives (RECs) who take care of the retail side of the business.

NPC is in deep financial crisis. While it has posted an average annual net income of three billion pesos from 1993 to 1997, it suffered a net loss of three billion pesos in 1998 and 1999 as well. The prospects for 2000 onwards do not look that promising. The main culprit is its fragile financial structure. Over the 63 years of NPC's existence, the government has only infused a total of 26.5 billion pesos in equity, equivalent to less than 5% of its 1999 total assets of 646 billion pesos. It has relied heavily on debt to finance its capital expenditures. NPC's debt to equity ratio for 1998 is 80:20. Its heavy dependence on debts has been magnified by the Asian currency crisis. NPC has been managing to keep paying for its liabilities albeit through further borrowings.

Initially, credits came from multi-lateral and bilateral institutions such as the World Bank, ADB, OECF. However, when the government was unable to fund NPC's counterpart funds for projects, the private sector was tapped to finance these projects through the IPP's Build-Operate-Transfer (BOT) and its variant scheme arrangement. It is estimated that the annual obligations of NPC for BOT and variant scheme contracts will reach fifty billion pesos (PHP 50 B) this year (2000) increasing to about seventy billion pesos (PHP 70 B) within the next five years. The figure does not include the cost of fuel associated with running these IPP's. These BOT contracts are now becoming a big burden to NPC and pose a serious cash flow implication as NPC's market shrinks. The amount needed per kilowatt-hour for NPC to recover its BOT payments will go up as total sales go down.

System wide, the demand for electricity both in terms of energy and capacity will have an annual growth rate of almost 8.3 percent. However, NPC's load is expected to grow at only three percent. NPC's market share of 90 percent in 1999 is expected to decrease to 70 percent in 2004. This decline in NPC's load is due to the entry of non-NPC IPPs and the growing self-generation. Executive Order 215 effectively removed NPC's monopoly in generation and allowed the private sector to generate electricity for sale to distributors. Aside from NPC, distributors procure electricity from its own IPP for sale to the end consumers. This has displaced the NPC capacities, including NPC's IPP contracted capacities, which will be stranded.

This is of concern as these obligations are guaranteed and represents contingent liabilities to the government. In end 1999, a present value estimate of all the government contingent liabilities for BOT and variant scheme contracts alone is estimated at around US$ 5.0 to 6.0 billion depending on the discount rate used.

Tariff increases have always been resorted to in order to cover funding shortfalls after additional borrowings. However, what is essentially a balance sheet problem could not be addressed by profit and loss operations, i.e., tariff increases. The issue must be addressed by using balance sheet tools by way of financial restructuring.

The ultimate solution is really the restructuring of the industry and the privatization of NPC, which must relentlessly be pursued. The Omnibus Bill for the restructuring of the Philippine Electricity Supply Industry and the Privatization of NPC has several versions and is currently pending in both houses of Congress. Nonetheless, it is imperative that NPC's debts be effectively and efficiently managed in the interim.

In view of the need to ensure NPC's financial viability in the short-term while the Omnibus Bill is progressing, it may be necessary to find parallel initiatives that will both provide immediate cash flow relief to NPC and consistency to the reforms of the Omnibus Bill.

The purpose, therefore, of this study is to recommend measures on how to manage NPC's liabilities and the government's contingent liabilities in light of the above condition. Specifically, the study aims to:

1. Update and/or establish on a definite level both the NPC liabilities and the Government's contingent liabilities. Undertake to develop a data base of all these liabilities;

2. Develop discounted cash flow models which can be used by the Government to evaluate the cost and/or benefit to the Government of different scenarios obtaining in the power sector including the proposed privatization and the alternative OMC;

3. Recommend measures which may be taken by the Government to address or minimize the impact of these liabilities to the finances of the Government.

This Study is being undertaken for the Department of Finance (DOF) with funding from the US AID's Accelerating Growth Investments Liberalization and Equity (AGILE). A notice to proceed was given, albeit informally last September 1999 after meetings with both the DOF and AGILE. As a consequence, the Team started the study last October 1999 with the scope of services indicated in the Appendix – Part A.

II. LIABILITIES

A. NPC

1. External Debt

In the past years, the bulk of NPC's funding requirements came from external borrowings. As of December 31, 1999, NPC will have approximately US$6.6 Billion in committed facilities from foreign lenders. Around US$6.1 Billion is accounted for by the Corporation's regular loans from various multilateral, export credit and commercial lenders and the remaining US$467 Million are restructured loans. Average remaining life of NPC debts is approximately 12 years. All the borrowings of NPC are guaranteed by the Philippine Government.

Most of the foreign borrowings, or around 56 percent of the total, comes from official development assistance from multilateral and export credit agencies. The major creditors of the Company are the Japan Bank for International Cooperation (JBIC), the Asian Development Bank (ADB), the World Bank and Kreditanstalt fur Wiederaufbau (KFW). About 22% comes from syndicated commercial loans and the other 22% from issuance of bonds.

Substantially, most of NPC's outstanding debt is denominated in US$ accounting for 50.25 percent of the total or an equivalent of US$3.3 Billion, 44.8 percent in Japanese Yen or about US$2.9 Billion, and the rest are in various third currencies.

Almost 53 percent of the loans have fixed interest rates averaging 5.96 percent per annum across all currencies. For US$ fixed rate debts, the average interest rate is 7.9 percent, while yen fixed rate loans have an average interest rate of 4.26 percent per annum. Expectedly, the US Dollar bond issues are the most expensive with an average cost of 8.3 percent per annum while ODAs provide the most concessionary rates averaging 5.72 percent per annum. Estimated present average interest rate for the floating rate loans, on the other hand, is around 4.79 percent per annum with US$ interest rate averaging 5.97 percent per annum and Yen interest rate at 2.82 percent per annum.

NPC will be servicing its present debt until 2036. Annual debt service obligations are summarized in Table 1d. Debt service humps in some years are due to certain bonds maturing in those years. The US$200 million Eurobond is due in 2000, another US$150 million inaugural issue under the US$500 million EMTN program will mature in 2002, another one worth US$100 million due in 2009, the US$360 million Yankee bond due in 2006 and 2016, and another US$300 million Yankee bond maturing in 2028. The yen bond market has also provided the Company with a JPY 12 Billion which is due in 2015.

Essential data on NPC's foreign loans are summarized in Tables 1a-d. Specific information about each loan can be seen in the Appendix – Part B.

2. Independent Power Producers (IPP)

The program of tapping the private sector through the IPP's to implement government power projects was hailed as a success by the public worldwide, when it became instrumental in ending the power crisis in the early 90's. It was also seen as a way of implementing infrastructure projects without resorting to borrowings from the usual multi-lateral agencies such as the World Bank, ADB and OECF. It, therefore, became a policy in NPC to have all generation projects implemented using funds by the private sector.

During the early years, the effects of the high tariff being paid to the IPP's in NPC finances are not yet felt especially as there are only very few plants involved. However, as more and more capacities are put in place through this scheme, it became apparent that NPC finances will not be able to sustain this arrangement. The situation is worsened by the dwindling NPC market and the capacity expansion NPC has undertaken based on an initial optimistic market scenario. The IPP liabilities in the form of stranded costs will increasingly put a strain to NPC finances.

(i) IPP Contracts

As of the end of December 1999, there are forty-eight (48) contracts entered into by NPC with the various IPP's operating in the country. A summary of the characteristics of these contracts is found in Table 2.

Some of the contracts involved plants owned by NPC which are operated by the IPP's under the ROM/ROL (Rehabilitate-Operate-Maintain or Lease) arrangement. They represent about 2,310 MW of capacities contributed to the system. Except for the CBK BROT Project which is a rehabilitation of existing units at the same time the development of new facilities, the majority of the contracts involved projects which were developed by the IPP's themselves under the BOT/BOO (Build-Operate-Transfer/Own) scheme. A total of thirty-eight (38) contracts with a combined capacity of 7,151.42 MW are in place. Out of the total number contracted, seven (7) contracts were already retired which have a combined capacity of 743 MW as of the end of 1999. These include the insurance capacities consisting mostly of gas turbine power barges recently sold by NPC.

A number of Power Purchase Agreements (PPA's) for "small " plants were entered into for areas isolated from the system. These include the following: the mini-hydro plants of HEDCOR and NMHC at Benguet, the Paragua diesel plant in Palawan, the mini-hydro plant of NIA at Baligatan, Isabela, which was within the service area of the Magat reservoir, the Maricalum plant at Marinduque operated by a mining company, the Busco bio-mass co-generating plant in Bukidnon and the Janopol mini-hydro plant in Bohol , Information on the last four (4) contracts (44 MW) were not readily available since they are lodged with the respective areas they serve. They were, therefore, not included in the analysis. The results, however, will not be significantly be affected by these four.

There are seven (7) projects which are still in the pre-completion stage, with contracts already in place. These are: the Bakun hydro, the CBK BROT, Ilijan Natural gas, the San Roque Multi-purpose, the Casecnan Multi-purpose, the San Pascual Cogeneration and the Mindanao Coal. These contracts, however, will have significant impact to the system during their entry within the next five (5) years. The entry dates of the last two contracts, however, are still being discussed with NPC. The San Pascual Co-generation Project was deferred from an entry date of 2002 to 2004, while the Mindanao Coal Project was deferred from 2004 to 2006.

(ii) Causes of IPP Liabilities

Based on a review of the contracts, the IPP liabilities result from costs being stranded or not passable to the electricity tariff because:

1. The available capacity or energy (as the case may be) from the IPP plants which are covered by fee payments cannot be economically dispatched due to either low system demand or low rank in the merit order;

2. The high levels of allowable downtime consisting of the scheduled maintenance and forced outage are covered by fee payments;

3. High levels of off-take which assured the IPP of income even when they are not available;

4. Fee rates which were contracted way beyond the current tariff for a similar NPC-operated plant or even the average tariff charged to the customers;

5. Fee escalations were allowed even for capital recovery rates which were fixed investments;

(iii) Methodology of Evaluation

A financial cash flow model defining maximum possible payments to the IPP during the cooperation period was set up for each of the contracts. The following assumptions were considered:

1. Present values were calculated based on year 2000;

2. For certain contracts, all fee rates allowed with escalation were escalated up to the year 2000 using respective historical indices required. These rates are usually the fixed O & M and energy fee rates;

3. Discount rates used were 8% for foreign fees and 15% for local fees;

4. The maximum possible payment to the IPP assumes that the plant is capable of delivering contracted capacity or energy (as the case may be) to the system and that the year to year nominated capacity (or energy) will approximate that of the contracted;

5. The available energy for dispatch to the system is calculated based on contracted less the allowable downtime. The actual energy by the plant for dispatch to the grid will, however, be the basis for fuel costs calculation. This is established independently by the grid operator or presently, by the system planning or system operations of NPC;

On a year to year basis, therefore, the cash flow requirements of NPC to pay-off IPP obligations can be established. Consequently, with the given estimate of the energy for dispatch, the stranded costs for each of the project can be estimated.

(iv) Results of Evaluation

The cash flow model for each of the IPP project contract is included as Appendix – Part C.

A summary of annual IPP obligations is shown as Table 3. Also, note that for the Ilijan Natural Gas Project, where fuel will be a separate contract with Shell, fuel costs will be treated as part of the variable cost in the annual IPP obligations cash flow.

Based on these cash flow models, the net present value (NPV) of IPP payments as of the year 2000 was calculated at $ 13.79 B and PHP 104.07 B. Table 4 shows a summary of the NPV's of IPP payments for the projects.

This cost, however, excludes the fuel cost which will be assumed by NPC as the IPP thermal plant operates, except for the geothermal facilities of PNOC and the Mindanao Coal, both of which include the fuel cost in the tariff. Table 4 also shows an estimate of the fuel costs assuming all generation can be absorbed and dispatched. This was done to be able to have a sense of the total costs which will be spent as a consequence of operating the IPP's.

B. NATIONAL GOVERNMENT

1. Forms of Guarantees

Executive Order 215, Republic Act (RA) 7968 or the BOT Law, its amendments and their corresponding implementing rules and regulaitions provide the legal framework for contracting with private investors the implementation of a project through the BOT, BOO or its variant schemes. The laws provide for certain guarantees or enhancements by the Government to assist the investor in arranging for financing of the project. There are several kinds of guarantees provided by the Government. These are:

- A direct guarantee on the loans of the proponent. This is the highest form of guarantee which could be provided. There are no contracts in the power sector provided with this kind of guarantee;

- A guarantee or undertaking on the performance of the Government entity, in this case, NPC of its obligation under the contract. This is what was mostly provided to the IPP's in the power sector. It essentially undertakes that whenever NPC defaults on the payment or any of its obligations in the contract, the Government, through the Department of Finance will have to fulfill NPC's obligations;

- A provision of direct subsidy. In some instance, the Government has provided a direct subsidy or contribution to defray costs which cannot be covered by the power tariff. An example of this is the San Roque project, where the costs in the amount of $ 400 M for the non-power components such as irrigation, flood control and water quality improvement were taken up by the Government in the form of a direct contribution. The amount was financed by loans from the Japan Export Import Bank , now the Japan Bank for International Cooperation;

- An enhancement to improve the proponent's position may cover the entity or NPC taking over certain responsibilities in the implementation of the project. An example of this is the obligation for the land and rights-of-way, the associated transmission line, the pipeline in the case of the Ilijan Natural Gas Project, market and fuel risks especially for the Gas Project.

Only the obligations under the performance undertaking issued can be considered as representing the contingent liabilities of the Government. The last two forms of guarantees were normally part of the conditions in the tender to attract participants to the bidding. Apart from the market and fuel risks, the costs associated with these forms were anyway spent prior to the start of the cooperation period, and, therefore, will not be contingent liabilities.

2. Contingent Liabilities

Of the total "live" forty one (41) contracts, only sixteen (16) were issued a performance undertaking. Shown in Table 5 is a summary of the contracts with contingent liabilities Including the value of this liability.

Except that for the Ilijan Natural Gas Project and the San Pascual Co-generation Project where partial performance undertaking were issued, all the others were issued full performance undertaking.

A full performance undertaking indicates that the Government will guarantee all of NPC's obligations under the contract throughout the cooperation period, while the partial performance undertaking will guarantee performance only for obligations covering the capital recovery and fixed O & M fees during the debt service period. The reasoning here is that since this is a lender issue, then the undertaking should be made only during the period when the IPP is servicing its debt.

The maximum liability of the Government for a project can be estimated only during either of the two default conditions: during termination (at IPP's default) or during buyout. Most often, the bigger exposure for the Government is when buyout occurs, usually at NPC/Government default. The buyout price normally covers all future capital recovery payments to the Proponent expressed in present value terms using a discount rate pegged at CIRR (Commercial Interest Reference Rate).

An estimate of the total contingent liability is difficult for projects under the pre-completion stage. The buyout/ termination price usually requires an estimate by an independent party of all expenses already spent by the IPP as of the termination date. The value of contingent liability estimated, therefore, covers only those plants that are now in operation. The total contingent liability, therefore, is estimated at US $ 5.062 billion assuming a CIRR of 8%.

Since NPC is a national government entity, another school of thought is that any contractual obligation it has entered into will automatically carry the full backing of the Government. The performance undertaking being issued only guarantees the performance in the contract of the Agency, It, therefore, only affirms what is implicit in any given Government transaction. The implication is that, even if there is no performance undertaking issued for the project, the Government is ultimately responsible for NPC's obligation once an event of default occurs and NPC is unable to honor its obligation in the contract. Given this view, the total contingent liability will be an estimate of the termination / buyout price of all contracts having such provision. Table 5 also shows this estimate at US $ 5.823 billion.

3. Cost Of Guarantee

Although guarantees and other fiscal incentives are routinely provided by government to remain competitive in the market for infrastructure investment, no budgeted reserves have ever been set aside to cover exposure to contingent liabilities. If the proponent entity such as NPC will default and would be unable to meet its obligation when a buyout or termination occurs, the Government may have to step in to bail out not only because of the guarantee which was issued, but also because of repercussions it may have on other contracts and loans. However, there is often not enough immediately available cash in the government coffers to finance these claims. As a consequence, fiscal deficit may worsen. Left with a liquidity problem, the government has no choice but to finance these claims by issuing additional debt, raising taxes, or printing money. Insofar as contingent liabilities generate uncertainty with respect to the total amount of government expenditure, their random nature and the absence of budgeted reserves tend to exacerbate or give rise to adverse macroeconomic fluctuations.

To date, however, there has never been a circumstance where termination or a buyout has been called in the power sector. Government, through the Department of Finance (DOF) has never been called upon to step in for defaulted payments.

An understanding of these guarantees is, however, needed to be able to formulate measures to lessen its impact. Who requires the guarantee? When is it needed? What is the consequence if such a guarantee is not given? These are fundamental questions which must be answered.

The Lender normally requires the guarantee, not the Proponent. It is required because of any combination of factors:

- the perception on the Proponent Agency's ability to meet its financial obligations;
- the political and social risks prevailing (ie. country risk);
- the associated risks inherent in the infrastructure project;
- economic stability of the country and the region;
- poor experience of other Government entity in similar projects, etc.

The guarantee is required for the Proponent to achieve financial closing, such that if these guarantees are not issued, the project's implementation is jeopardized because of financing constraints.

NPC and the DOF had in the past attempted to measure the cost of a guarantee or undertaking it will issue. This was in connection with the bidding of the Ilijan Natural Gas Project as well as the San Roque Multi-purpose Project. At that time, a good number of the IPP contracts were already in place, several performance undertaking issued, and the economy was stable since it was then prior to the Asian currency crisis. There was the general perception that future infrastructure projects can be implemented without the usual guarantees given. Hence, during tendering, the proponents were asked to submit two bids assuming: (1) a full performance undertaking; and (b) partial performance undertaking is issued.

In the case of the Ilijan project, the results indicated that some of the bidders were unable to put in a bid under the partial performance undertaking. The bid price difference submitted by the bidders who were able to submit both indicated that although the price for the partial undertaking is higher than the full undertaking, it is not so significant. It is to be noted that the winning bidder – Korean Electric Power Company (KEPCO) is a Government entity. It was believed that KEPCO was able to put in a low bid with relatively better contractual terms because it assumed that it will be able to implement the project largely through equity. As it turned out, however, because of the financial crisis, a large portion of the financing was raised through borrowings. Hence, a Supplemental Agreement was negotiated to address Lender issues, otherwise, the project cannot be financed from the point of view of the Lenders. In addition, the guarantee that was issued was now upgraded to cover a full performance undertaking. KEPCO paid to DOF an annual guarantee fee of about $ 800,000. Because of the upgrade of the coverage, DOF and KEPCO are yet to agree on an increase in the annual fees.

For the San Roque Multi-purpose Project, only one bidder submitted a bid. However, the bid price for the partial undertaking is so high that there is a significant difference between the full and partial guarantee. At that time, DOF estimated that the value of a guarantee is 0.75% of the NPV of costs being guaranteed. It was shown by NPC that it is cheaper for the Government to issue a full performance undertaking than pay a higher contract price. Hence, a full performance undertaking was issued.

In conclusion, we may not be able to do away with the issuance of guarantees as this is a key requirement for a project to financially close. The performance undertaking being issued anyway, only affirms Government responsibility in case of default in the contract of the Government entity. The only thing that we may be able to do is minimize or lessen its impact, anticipate possible instances of default of specific projects, and plan to provide for them well in advance. In this respect, most of the IPP contracts have incorporated a 'long march' (upwards of nine (9) months), before the actual buyout occurs. It is also to be noted that buyout is the last resort for both parties. In some instance, if an event of default is caused by the operator, the Government can utilize the performance bond which is forfeited in favor of the Government to partially pay-off whatever is due the Proponent.

Moreover, once an effective management of liabilities of NPC is undertaken, the risks to the Government assuming NPC's contractual obligation will be lessened.

Table No.1a
NATIONAL POWER CORPORATION
LONG-TERM DEBT BY CURRENCY, AS OF DECEMBER 31, !999

	OUTSTANDING BALANCE IN ORIG. CURRENCY	OUTSTANDING BALANCE IN US DOLLARS	PERCENT DIST'N	INTEREST RATE
REGULAR		**6,127,824,078.13**	**92.91%**	**5.44**
USD	3,268,823,622.63	3,268,823,622.63	53.34%	6.83
JPY	265,888,113,923.40	2,597,195,096.80	42.38%	3.54
DEM	358,722,145.79	184,695,629.93	3.01%	7.66
FRF	238,991,363.89	36,688,998.22	0.60%	4.47
GBP	5,217,271.04	8,425,892.73	0.14%	8.17
CHF	50,993,396.60	31,994,837.82	0.52%	5.22
RESTRUCTURED		**467,261,912.94**	**7.09%**	**4.98**
USD	45,453,521.73	45,453,521.73	9.73%	5.60
JPY	36,724,962,081.00	358,729,429.61	76.77%	4.89
DEM	1,170,376.50	602,592.92	0.13%	8.48
FRF	35,909,580.59	5,512,695.17	1.18%	6.10
ATS	778,383,666.84	56,963,673.51	12.19%	4.85
TOTAL DEBT		**6,595,085,991.07**	**100.00%**	**5.41**
USD	3,314,277,144.36	3,314,277,144.36	50.25%	6.82
JPY	302,613,076,004.40	2,955,924,526.41	44.82%	3.70
DEM	359,892,522.29	185,298,222.84	2.81%	7.67
FRF	274,900,944.48	42,201,693.39	0.64%	4.68
GBP	5,217,271.04	8,425,892.73	0.13%	8.17
CHF	50,993,396.60	31,994,837.82	0.49%	5.22
ATS	778,383,666.84	56,963,673.51	0.86%	4.85

EXCHANGE RATES
as of December 31,1999

	CURR/ USD
JPY	102.3751
DEM	1.9422
CHF	1.5938
ATS	13.6646
FRF	6.5140
GBP	0.6192
CHF	1.4749
ATS	12.7634

Table No. 1b
NATIONAL POWER CORPORATION
LONG-TERM DEBT BY SOURCE , AS OF DECEMBER 31, 1999

MAJOR CREDITOR/TYPE	OUTSTANDING BALANCE In Original Currency	In US Dollars	PERCENT DIST'N	INTEREST RATE
ODA		**2,469,632,667.23**	**40.30%**	
ADB	841,830,763.79	841,830,763.79		6.71
IBRD	604,630,539.58	604,630,539.58		5.23
OTHERS	125,823,729.65	125,823,729.65		2.89
TOTAL ODA-USD	**1,572,285,033.02**	**1,572,285,033.02**	63.66%	
IBRD	502,300,910.00	4,906,475.29		1.31
OECF	91,363,755,008.40	892,441,158.92		3.82
TOTAL ODA-JPY	**91,866,055,918.40**	**897,347,634.21**	36.34%	
EXPORT CREDIT		**975,175,055.41**	**15.91%**	
JEXIM	77,516,697,306.00	757,183,099.29		3.98
KFW	338,321,552.64	174,191,956.13		7.78
Others	43,800,000.00	43,800,000.00		1.58
COMMERCIAL LOANS		**1,353,241,911.53**	**22.08%**	
Export Credit G'teed		**736,333,247.74**	54.41%	
	180,180,145.66	180,180,145.66		5.99
	48,000,000,000.00	468,864,000.00		3.00
	50,993,396.60	31,994,837.82		2.14
	19,770,725.70	10,179,373.31		5.75
	238,991,363.89	36,688,998.22		4.47
	5,217,271.04	8,425,892.73		8.17
Other Loans		**616,908,663.79**	45.59%	
	260,000,000.00	260,000,000.00		6.58
	36,505,360,699.00	356,584,363.31		2.24
	629,867.45	324,300.48		5.75
BONDS		**1,329,774,443.95**	**21.70%**	
NPC Issued		**1,227,216,000.00**		8.31
	1,110,000,000.00	1,110,000,000.00		8.70
	12,000,000,000.00	117,216,000.00		4.65
RP Issued		102,558,443.95		6.37
TOTAL REGULAR LOANS		6,127,824,078.13	100.00%	

Table No.1c
NATIONAL POWER CORPORATION
LONG-TERM DEBT BY INTEREST TYPE AND BY CURRENCY, AS OF DECEMBER 31, 1999

INTEREST TYPE/ CURRENCY	OUTSTANDING BALANCE In Orig. Currency	In US Dollars	Percent Dist'n.	INTEREST RATE
REGULAR DEBTS		6,127,824,078.13		5.44
FIXED RATE		3,168,081,760.72	51.7%	6.01
USD	1,418,624,073.63	1,418,624,073.63	44.8%	7.96
JPY	156,934,699,656.40	1,532,938,146.24	50.2%	4.04
DEM	289,580,498.29	149,096,600.74	4.9%	7.82
FRF	238,991,363.89	36,688,998.22	1.2%	4.47
GBP	5,217,271.04	8,425,892.73	0.3%	8.17
CHF	35,554,585.55	22,308,049.17	0.7%	6.55
FLOATING		2,959,742,317.41	48.3%	4.84
USD	1,850,199,549.00	1,850,199,549.00	62.5%	5.97
JPY	108,953,414,267.00	1,064,256,950.56	36.0%	2.81
DEM	69,141,647.50	35,599,029.19	1.4%	7.00
CHF	15,438,811.05	9,686,788.66	0.3%	2.14
RESTRUCTURED LOANS		467,261,912.94	7.1%	4.98
FIXED		307,277,371.16	65.76%	5.53
US$	32,487,309.11	32,487,309.11	10.57%	5.55
JPY	28,069,970,222.00	274,187,469.13	89.23%	5.52
DEM	1,170,376.50	602,592.92	0.20%	8.48
FLOATING		159,984,541.78	34.24%	3.92
US$	12,966,212.62	12,966,212.62	8.10%	5.75
JPY	8,654,991,859.00	84,541,960.48	52.84%	2.87
FRF	35,909,580.59	5,512,695.17	3.45%	6.10
ATS	778,383,666.84	56,963,673.51	35.61%	4.85
TOTALDEBT		6,595,085,991.07		5.41
FIXED		3,475,359,131.88	52.70%	5.96
USD	1,451,111,382.74	1,451,111,382.74	41.75%	7.90
JPY	185,004,669,878.40	1,807,125,615.37	52.00%	4.26
DEM	290,750,874.79	149,699,193.65	4.31%	7.82
FRF	238,991,363.89	36,688,998.22	1.06%	4.47
GBP	5,217,271.04	8,425,892.73	0.24%	8.17
CHF	35,554,585.55	22,308,049.17	0.64%	6.55
FLOATING		3,119,726,859.19	47.30%	4.79
USD	1,863,165,761.62	1,863,165,761.62	59.72%	5.97
JPY	117,608,406,126.00	1,148,798,911.04	36.82%	2.82
DEM	69,141,647.50	35,599,029.19	1.14%	7.00
FRF	35,909,580.59	5,512,695.17	0.18%	6.10
CHF	15,438,811.05	9,686,788.66	0.31%	2.14
ATS	778,383,666.84	56,963,673.51	1.83%	4.85

Table No. 1d
NPC ANNUAL DEBT SERVICE
In Million US Dollars

YEAR	TOTAL			REGULAR			RESTRUCTURED		
	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total
2000	721.93	356.41	1,078.33	649.76	333.47	983.23	72.17	22.94	95.10
2001	530.86	312.99	843.85	480.95	294.25	775.20	49.91	18.74	68.65
2002	572.01	285.64	857.65	518.24	269.45	787.69	53.77	16.19	69.96
2003	420.93	252.74	673.67	363.67	239.22	602.90	57.26	13.51	70.77
2004	384.39	233.63	618.03	328.53	222.90	551.43	55.87	10.73	66.60
2005	317.81	215.59	533.40	261.94	207.57	469.51	55.87	8.02	63.89
2006	514.31	200.82	715.14	458.45	195.52	653.96	55.87	5.31	61.17
2007	290.56	170.04	460.61	258.77	167.45	426.22	31.80	2.59	34.39
2008	251.60	156.52	408.12	243.88	155.40	399.28	7.73	1.11	8.84
2009	807.77	144.65	952.42	800.05	143.78	943.83	7.73	0.87	8.59
2010	207.70	109.67	317.38	199.98	109.06	309.03	7.73	0.62	8.34
2011	183.04	100.26	283.30	175.31	99.89	275.20	7.73	0.37	8.10
2012	173.19	91.79	264.97	169.32	91.66	260.98	3.86	0.12	3.99
2013	141.48	83.56	225.03	141.48	83.56	225.03	-		-
2014	118.19	76.57	194.75	118.19	76.57	194.75	-	-	-
2015	212.02	70.55	282.57	212.02	70.55	282.57	-	-	-
2016	212.74	60.16	272.90	212.74	60.16	272.90	-	-	-
2017	101.37	43.88	145.25	101.37	43.88	145.25	-	-	-
2018	17.75	37.83	55.58	17.75	37.83	55.58	-	-	-
2019	14.58	36.76	51.34	14.58	36.76	51.34	-	-	-
2020	13.36	35.87	49.23	13.36	35.87	49.23	-	-	-
2021	13.05	35.04	48.09	13.05	35.04	48.09	-	-	-
2022	12.81	34.23	47.04	12.81	34.23	47.04	-	-	-
2023	10.70	33.42	44.12	10.70	33.42	44.12	-	-	-
2024	9.04	32.73	41.77	9.04	32.73	41.77	-	-	-
2025	5.90	32.10	38.00	5.90	32.10	38.00	-	-	-
2026	5.36	31.62	36.98	5.36	31.62	36.98	-	-	-
2027	4.69	31.20	35.89	4.69	31.20	35.89	-	-	-
2028	304.26	30.84	335.10	304.26	30.84	335.10	-	-	-
2029	4.26	1.63	5.89	4.26	1.63	5.89	-	-	-
2030	4.26	1.30	5.56	4.26	1.30	5.56	-	-	-
2031	4.26	0.97	5.22	4.26	0.97	5.22	-	-	-
2032	3.67	0.63	4.30	3.67	0.63	4.30	-	-	-
2033	2.10	0.35	2.45	2.10	0.35	2.45	-	-	-
2034	2.10	0.22	2.32	2.10	0.22	2.32	-	-	-
2035	0.95	0.08	1.03	0.95	0.08	1.03	-	-	-
2036	0.11	0.01	0.11	0.11	0.01	0.11	-	-	-

Exchange Rates
as of December 31, 1999

JPY	102.375
DEM	1.942
FRF	6.514
GBP	0.619
CHF	1.594
ATS	13.665

LIST of PLANTS OPERATED BY IPP
(as of 31 DECEMBER 1999)
Table 2

	NAME	STATUS	TYPE	LOCATION	CONTRACT	NO. & UNIT SIZE	CAPACITY (MW)	PROPONENT	CONTRACT SIGNING	COMMERCIAL OPERATION DATE	CONTRACT END	COOPERATIO PERIOD (YRS)	CONTRACTED CAPACITY (MW)
I	NPC-OWNED												
1	AMBUKLAO	/	Hydro	Bokod, Benguet	ROL	3 X 25	75.00	Miescor	14-Sep-93	30-Oct-95	29-Oct-00	5	75
2	BINGA	/	Hydro	Itogon, Benguet	ROL	4 X 25	100.00	China Chang Jiang	25-Aug-93	16-Aug-94	15-Aug-09	15	100
3	ORMAT-MAKBAN		Geothermal	Bitin, Bay Laguna	BTO	1 X 15.70	15.70	Ormat Inc (USA)	21-Feb-92	01-Mar-94	28-Feb-04	10	15.7
4	MALAYA 1	/	Oil-fired	Pililla, Rizal	ROM	1 X 300	650.00	KEPCO (South Korea)	05-Jul-95	01-Jun-95	31-May-10	15	650
	MALAYA 2	/	Oil-fired	Pililla, Rizal		1 X 350		KEPCO (South Korea)		01-Jun-95	31-May-10		
5	LIMAY BATAAN CC A	/	Combined cycle	Limay, Bataan	BTO	3 x 100	600.00	ABB/Marubeni/Kawasaki	27-Feb-92	01-Oct-94	30-Sep-09	15	300
	LIMAY BATAAN CC B	/	Combined cycle			3 X 100			29-Jun-92	01-Jan-95	31-Dec-10	15	300
6	NAGA COAL 1	/	Coal	Colon, Naga, Cebu	ROM	1 X 50	105.00	Salcon Philippines	25-Mar-94	31-May-94	30-May-09	15	203.8
	NAGA COAL 2	/	Coal			1 X 55							
	CEBU DIESEL 1	/	Oil fired Diesel	Colon, Naga, Cebu	ROM	8 X 7.3	43.80	Salcon Philippines					
	NAGA GT	/	Gas Turbine	Naga, Cebu	ROM	2 X 27.5	55.00	Salcon Philippines					
7	MINI BARGE # 117	/	Oil-fired Power Barge	Nasipit, Agusan del Norte	BTO	1 X 100	100.00	Mitsui/BWES	11-Feb-92	01-Mar-94	28-Feb-09	15	100
8	MINI BARGE # 118	/	Oil-fired Power Barge	Maco, Davao del Norte	BTO	1 X 100	100.00	Mitsui/BWES	11-Feb-92	01-Jul-94	30-Jun-09	15	100
9	BACMAN BINARY		Geothermal	Bacon Manito, Albay	BTO	1 x 15.73	15.73	Ormat Inc (USA)	16-Sep-92	01-Jun-99	31-May-09	10	15.7
10	GT BARGE # 201	Retired	Gas Turbine Barge	Polloc, Cotabato	ROM	1 X 30	30.00	Hopewell Tileman, HK					30
	GT BARGE # 204	Retired	Gas Turbine Barge	General Santos, Cotabato	ROM	1 X 30	30.00	Hopewell Tileman, HK					30
	GT BARGE # 205	Retired	Gas Turbine Barge	Navotas, Metro Manila	ROM	1 X 30	30.00	Hopewell Tileman, HK					60
	GT BARGE # 202	Retired	Gas Turbine Barge	Navotas, Metro Manila	ROM	1 X 30	30.00	Hopewell Tileman, HK					90
	GT BARGE # 208	Retired	Gas Turbine Barge	Navotas, Metro Manila	ROM	1 X 30	30.00	Hopewell Tileman, HK					120
	GT BARGE # 208	Retired	Gas Turbine Barge	Tacloban City	ROM	1 X 30	30.00	Hopewell Tileman, HK					30
	GT BARGE # 203	Retired	Gas Turbine Barge	Cebu Int'l Port, Cebu city	ROM	1 X 30	30.00	Hopewell Tileman, HK					30
	GT BARGE # 206	Retired	Gas Turbine Barge	Cortes, Bohol	ROM	1 X 30	30.00	Hopewell Tileman, HK					30
	GT BARGE # 207	Retired	Gas Turbine Barge	La Paz, Iloilo	ROM	1 X 30	30.00	Hopewell Tileman, HK					30
												TOTAL	2310.2
II	PRIVATELY-OWNED												
11	HEDCOR-AMPOHAW		Hydro	Baneng-beng, Benguet	PPA	various	12.05	Northern Mini-Hydro Corporation	14-Oct-91	01-Jul-92	30-Jun-17	25	12.05
12	NORTHERN MINI HYDRO		Hydro	Beckel, Benguet	PPA	various	6.00	HEDCOR	14-Oct-91	01-Jul-92	01-Jul-17	25	6
13	NIA-BALIGATAN		Hydro	San Ramon, Isabela	PPA	various	6.00	NIA					6
14	CLARK-ECI	Retired	Oil-fired Diesel	Clark, Angeles, Pampanga	PPA	various	50.00	Electrobus (Philippines)					50
15	PINAMUCAN-ENRON	/	Oil-fired Diesel	Pinamucan, Batangas	BOT		105.00	Enron Power Corporation	20-Jun-92	01-Jul-93	30-Jun-03	10	105
16	FELS I	Retired /	Oil-fired Power Barge	Calaca, Batangas	O & L	3 X 30	90.00	Far East Levingston (FELS)	10-Feb-93	01-Sep-93	30-Oct-98	5	90
17	SUBIC-ENRON 1	Retired	Oil-fired Diesel	Olongapo, Zambales	ROM	1 x 28	28.00	Enron Power Corporation		01-Feb-94	31-Jan-00	15	28
18	SUBIC-ENRON 2	/	Oil-fired Diesel	Olongapo, Zambales	BOT		108.00	Enron Power Corporation	07-Jan-92	01-Mar-94		15	108
19	FELS II	Retired /	Oil fired Power Barge	Navotas, Metro Manila	O & L	2 x 45	90.00	Far East Levingston (FELS)	26-Nov-93	01-Jun-94	31-May-99	5	90
20	EAST ASIA -VDH	Retired /	Oil-fired Power Barge	Navotas, Metro Manila	BOO	2 x 60	120.00	East Asia Power Corp	08-Nov-93	01-Jul-94		5	120
21	SABAH SHIPYARD	Retired /	Oil-fired Power Barge	Navotas, Metro Manila	O & L	1 x 100	100.00	Sabah Shipyard (Ganda)	06-Sep-93	01-Oct-94	31-May-99	5	100
22	FPPC - BAUANG	/	Oil-fired Diesel	Bauang, La Union	BOT		215.00	First Private Power Corp	11-Jan-93	01-Feb-95	31-Jan-10	15	215
23	EDISON GLOBAL (Bataan Diesel)		Oil fired Diesel	EPZA, Mariveles, Bataan	BOO		58.00	Edison Global (HK)	25-Aug-93	16-Aug-94		10	58
24	MAGELLAN (Cavite Diesel)	/	Oil-fired Diesel	EPZA, Rosario, Cavite	BOO		43.00	Magellan Cogen Utilities	23-Sep-93	01-Dec-95		10	43
25	HOPEWELL GT UNIT 1-3	/	Gas Turbine Barge	Navotas, Metro Manila	BOT	3 x 70	210.00	Hopewell, HK	16-Nov-88	01-Jan-93	31-Dec-02	10	210
26	HOPEWELL GT UNIT 4	/	Gas Turbine Barge	Navotas, Metro Manila	BOT		100.00	Hopewell, HK	29-Jun-92	30-Mar-93	28-Feb-06	12	100
27	PAGBILAO	/	Coal	Pagbilao, Pangasinan		2 x 350	700.00	Hopewell, HK (Southern Energy)	09-Nov-91	01-Jun-96	31-May-20	25	700
28	JANOPOL		Hydro	Janopol, Bohol	PPA		5.00						5
29	ACMDC Toledo (Atlas Mining)		Coal	Cebu	PPA		55.00	Atlas Consolidated Mining Corp.	08-Apr-90	01-Feb-93	31-Jan-03	10	55
30	MARICALUM		Oil-fired Diesel	Sipalay, Negros Occ			30.00						30
31	LEYTE A (Leyte-Cebu)	/	Geothermal	Tongonan, Leyte	PPA		200.00	PNOC	04-Mar-94	25-Nov-97	26-Nov-22	25	200
32	LEYTE B (Leyte-Luzon)		Geothermal	Tongonan, Leyte	PPA		440.00	PNOC	15-Jul-94	25-Jul-98	24-Jul-23	25	440
33	NMPC (Iligan Diesel I)	/	Oil-fired Diesel	Dalipuga, Iligan city	BOT		58.00	Alsons/Tomen	29-Jun-92	01-Aug-93	31-Jul-23	10	58
34	NMPC (Iligan Diesel II)	/	Oil-fired Diesel	Dalipuga, Iligan city	BOT		40.00	Alsons/Tomen	19-Nov-92	01-Dec-93	30-Nov-03	12	40
35	BUSCO BIOMASS COGEN		Co-generation	Quezon, Bukidnon			8.00						8
36	ZAMBOANGA DIESEL		Oil-fired Diesel	Zamboanga del Sur	BOO		100.00	Alsons/Tomen	28-Mar-96	01-Dec-97	30-Nov-15	18	100
37	GENERAL SANTOS DIESEL		Oil-fired Diesel	General Santos city	BOO		50.00	Alsons/Tomen	26-Oct-96	24-Apr-98	23-Apr-16	18	50
38	MINDANAO (MT. APO) GPP1		Geothermal	Kidapawan, North Cotabato	PPA		47.00	PNOC	12-May-95	15-Feb-97	14-Feb-22	25	47
39	MINDANAO (MT. APO) GPP 2		Geothermal	Kidapawan, North Cotabato	PPA		48.25	PNOC		01-Jul-99	30-Jun-24	25	48.25
40	PARAGUA (PALAWAN)		Oil-fired Diesel	Palawan	PPA		16.00	PanAsia (USA)		01-Jan-97	31-Dec-08		16
41	SUAL	/	Coal	Sual, Pangasinan	BOT		1000.00	Hopewell, HK (Southern Energy)		05-Oct-99	04-Oct-24		1000
42	BAKUN		Hydro	Bakun, Benguet	BOT	2 x 35	70.00	Luzon Hydro Corp (HEDCOR/AEV)		01-Sep-00	31-Aug-25		70
43	CBK		Pumped Hydro	Caliraya, Laguna	BROT	2 X 177, 2 X 17 2 X 11.75, 2 X 10.36 1 X 0.90	754.12	IMPSA		01-Jan-04	31-Dec-28	25	754.12
44	SAN PASCUAL COGEN		Co-generation	San Pascual, Batangas	BOO		304.00	San Pascual CoGen Corp (Texaco)		01-Jan-04	31-Dec-28	25	304
45	ILIJAN NATURAL GAS		Natural gas	Ilijan, Batangas	BOT		1200.00	KEPCO		01-Jul-02	30-Jun-22	20	1200
46	MINDANAO COAL		Coal	Phividec, Cagayan de Oro	BOT		200.00	State Investment/ Harbin	27-Jun-96	01-Jan-06	31-Dec-30	25	200
47	CASECNAN	/	Hydro	Nueva Vizcaya	BOT		140.00	NIA/California Energy		01-Jan-00	31-Dec-19	20	140
48	SAN ROQUE		Hydro	San Roque, Pangasinan	BOT	3 x 115	345.00	SRPC (Marubeni/ Sithe Energies/Kansai Electric)		01-Jan-05	31-Dec-29	25	345
												TOTAL	7151.42

BEST AVAILABLE COPY

ANNUAL IPP PAYMENTS
In Million Pesos
Table 3

	IPP PLANTS	CAPITAL RECOVERY PAYMENTS INCLUDING CAPACITY FEES						FIXED O & M						VARIABLE COSTS (ENERGY FEE)					
		2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
1	Naga Power Complex:							430.72	430.72	430.72	430.72	430.72	430.72	754.00	754.00	754.00	754.00	754.00	754.00
	Cebu Diesel 1	-	-	-	-	-	-	97.14	97.14	97.14	97.14	97.14	97.14	148.40	148.40	148.40	148.40	148.40	148.40
	Cebu Thermal 1	-	-	-	-	-	-	117.22	117.22	117.22	117.22	117.22	117.22	224.40	224.40	224.40	224.40	224.40	224.40
	Cebu Thermal 2	-	-	-	-	-	-	134.37	134.37	134.37	134.37	134.37	134.37	254.80	254.80	254.80	254.80	254.80	254.80
	GT Land -based 1&2	-	-	-	-	-	-	81.99	81.99	81.99	81.99	81.99	81.99	126.40	126.40	126.40	126.40	126.40	126.40
2	Navotas GT 4 (?)	240.96	240.96	240.96	240.96	240.96	40.16	-	-	-	-	-	-	12.26	12.26	12.26	12.26	12.26	2.04
3	Malaya 1	-	-	-	-	-	-	616.88	616.88	616.88	616.88	616.88	616.88	781.20	781.20	781.20	781.20	781.20	781.20
4	Malaya 2	-	-	-	-	-	-	659.26	659.26	659.26	659.26	659.26	659.26	860.80	860.80	860.80	860.80	860.80	860.80
5	Zamboanga Diesel Plant	718.12	718.12	718.12	718.12	718.12	718.12	207.45	207.45	207.45	207.45	207.45	207.45	94.47	94.47	94.47	94.47	94.47	94.47
6	Casecnan	1,504.80	1,504.80	1,504.80	1,504.80	1,504.80	1,504.80	-	-	-	-	-	-	1,229.20	1,229.20	1,229.20	1,229.20	1,229.20	1,229.20
7	PB 117 & 118	290.37	290.37	290.37	290.37	290.37	290.37	-	-	-	-	-	-	234.93	228.47	228.47	228.47	228.47	228.47
8	San Pasqual Cogen					2,991.20	2,991.20					373.61	373.61					558.08	558.08
9	Suat Coal	9,345.20	9,345.20	9,345.20	9,345.20	9,345.20	9,345.20	552.38	552.38	552.38	552.38	552.38	552.38	567.98	567.99	567.98	567.98	567.98	567.98
10	Pinamucan	1,512.00	1,512.00	1,512.00	756.00			161.05	161.05	161.05	80.53			-	-	-	-		
11	General Santos Diesel	405.35	405.35	405.35	405.35	405.35	405.35	86.10	86.10	86.10	86.10	86.10	86.10	38.44	38.44	38.44	38.44	38.44	38.44
12	Mindanao (Apo I) Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	847.50	847.50	847.50	847.50	847.50	847.50
13	Mindanao (Apo II) Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	783.07	783.07	783.07	783.07	783.07	783.07
14	ACMDC (Toledo)	-	-	-	-			-	-	-	-			481.80	481.80	481.80	102.68		
15	Iligan Diesel (NMPC or Tomen) I	380.00	380.00	380.00	58.40			138.97	138.97	138.97	69.78			172.17	172.17	172.17	100.43		
16	Iligan Diesel (NMPC or Tomen) II	294.40	294.40	294.40	294.40	294.40	270.00	95.36	95.36	95.36	95.36	95.36	79.16	96.16	96.16	96.16	96.16	96.16	88.31
17	Bacman Binary	-	-	-	-	-	-	318.79	318.79	318.79	318.79	318.79	318.79						
18	Binga	-	-	-	-	-	-	-	-	-	-	-	-	504.00	504.00	504.00	504.00	504.00	504.00
19	Edison Global	156.80	156.80	156.80	152.40			111.63	111.63	111.63	108.54			26.32	26.32	26.32	25.59		
20	Enron Subic	1,120.80	1,120.80	1,120.80	1,120.80	1,120.80	1,120.80	42.74	42.74	42.74	42.74	42.74	42.74	59.21	59.21	59.21	59.21	59.21	59.21
21	FPPC Bauang Diesel	1,444.80	1,444.80	1,444.80	1,444.80	1,444.80	1,444.80	355.04	355.04	355.04	355.04	355.04	355.04	437.66	437.66	437.66	437.66	437.66	437.66
22	Ambuklao	-						-						105.00					
23	Navotas GT 1-3	325.08	325.08	325.08				-	-	-				221.64	227.23	232.09			
24	Mak-Ban Binary	-	-	-	-	-		648.03	648.03	648.03	648.03	162.11							
25	HEDCOR	-	-	-	-	-	-	-	-	-	-	-	-	143.60	143.60	143.60	143.60	143.60	143.60
26	NMHC	-	-	-	-	-	-	-	-	-	-	-	-	117.49	117.49	117.49	117.49	117.49	117.49
27	NIA-Baligatan																		
28	Leyte-Luzon	-	-	-	-	-	-	-	-	-	-	-	-	6,720.16	6,720.16	6,720.16	6,720.16	6,720.16	6,720.16
29	Leyte-Cebu	-	-	-	-	-	-	-	-	-	-	-	-	2,803.97	2,803.97	2,803.97	2,803.97	2,803.97	2,803.97
30	Magellan Cavite	442.00	428.40	418.40	404.80	142.00		99.17	96.71	93.77	90.73	4.32							
31	Pagbilao Coal	8,164.80	8,164.80	8,164.80	8,164.80	8,164.80	8,164.80	550.00	550.00	550.00	550.00	550.00	550.00	516.30	516.30	516.30	516.30	516.30	516.30
32	Limay, Bataan Combined Cycle	737.71	737.71	737.71	737.71	737.71	737.71	-	-	-	-	-	-	270.76	270.76	270.76	270.76	270.76	270.76
33	San Roque						11,166.40						645.00						1,230.00
34	Bakun	1,288.00	3,864.00	3,672.40	3,480.80	3,289.20	3,081.60	148.00	440.00	440.00	440.00	440.00	440.00	3.06	9.20	9.20	9.20	9.20	9.20
35	Ilijan (Greenfield) Natural Gas Project			2,089.20	4,204.80	4,204.80	4,204.80			339.40	679.21	679.21	679.21			42.37	84.05	84.05	84.05
	Ilijan Fuel															5,696.00	11,544.80	11,385.20	11,634.00
36	Mindanao Coal Plant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	CBK					1,709.20	1,966.40					136.96	157.56						
38	Paragua	-	-	-	-	-	-	-	-	-	-	-	-	234.85	234.85	234.85	234.85	234.85	222.71
	ANNUAL TOTAL	29,371.19	30,933.59	32,821.19	33,324.51	36,603.71	47,452.51	5,221.57	5,511.11	5,847.57	6,031.54	5,710.93	6,193.90	19,118.01	19,018.28	24,761.51	29,968.31	30,138.09	31,586.68

LIST of PLANTS OPERATED BY IPP's
NPV SUMMARY in millions
year 2000
Table 4

	NAME	STATUS	IPP PAYMENTS $	IPP PAYMENTS PHP	FUEL COSTS*** $	FUEL COSTS*** PHP	TOTAL COSTS $	TOTAL COSTS PHP
I	*NPC-OWNED*							
1	AMBUKLAO**			105.00			0.00	105.00
2	BINGA**		59.08				59.08	0.00
3	ORMAT-MAKBAN		46.36	344.50			46.36	344.50
4	MALAYA 1		134.50	3,151.20	399.80		534.30	3,151.20
	MALAYA 2		148.30	3,367.70	450.80		599.10	3,367.70
5	LIMAY BATAAN CC A& B		295.01	1,310.59	1,016.18		1,311.19	1,310.59
6	NAGA COAL 1		36.38	521.41	31.14		67.52	521.41
	NAGA COAL 2		41.01	865.31	66.06		107.07	865.31
	CEBU DIESEL 1		23.91	473.51	41.89		65.80	473.51
	NAGA GT		20.32	2,201.73	59.52		79.84	2,201.73
7	MIN. BARGE # 117		27.56	426.45	88.74		116.30	426.45
8	MIN. BARGE # 118		27.56	426.46	88.74		116.30	426.46
9	GT BARGE # 201	Retired					0.00	0.00
	GT BARGE # 204	Retired					0.00	0.00
	GT BARGE # 202	Retired					0.00	0.00
	GT BARGE # 205	Retired					0.00	0.00
	GT BARGE # 209	Retired					0.00	0.00
	GT BARGE # 206	Retired					0.00	0.00
	GT BARGE # 203	Retired					0.00	0.00
	GT BARGE # 208	Retired					0.00	0.00
	GT BARGE # 207	Retired					0.00	0.00
II	*PRIVATELY-OWNED*							
10	HEDCOR-AMPOHAW**			863.94			0.00	863.94
11	NORTHERN MINI-HYDRO**			715.25			0.00	715.25
12	NIA-BALIGATAN**						0.00	0.00
13	CLARK-ECI	Retired						
14	PINAMUCAN-ENRON		120.42	96.21	51.26		171.68	96.21
15	FELS 1	Retired						
16	SUBIC-ENRON 1	Retired						
17	SUBIC-ENRON 2		185.55	200.65	133.84		319.39	200.65
18	FELS II	Retired						
19	EAST ASIA -VDH	Retired						
20	SABAH SHIPYARD	Retired						
21	FPPC - BAUANG		345.25	958.50	240.76		586.01	958.50
22	EDISON GLOBAL (Bataan Diesel)		23.93	179.03	25.59		49.52	179.03
23	MAGELLAN (Cavite Diesel)		78.14	198.07	46.86		125.00	198.07
24	HOPEWELL GT UNIT 1-3		30.90	211.00	140.43		171.33	211.00
25	HOPEWELL GT UNIT 4		25.94		70.71		96.65	0.00
26	PAGBILAO		2,239.33	1,157.63	528.81		2,768.14	1,157.63
27	JANOPOL**						0.00	0.00
28	ACMDC Toledo (Atlas Mining)			1,210.22	23.10		23.10	1,210.22
29	MARICALUM						0.00	0.00
30	LEYTE A (Leyte-Cebu)*			17,942.70			0.00	17,942.70
31	LEYTE B (Leyte-Luzon)*			43,099.00			0.00	43,099.00
32	NMPC (Iligan Diesel I)		46.07	153.04	35.29		81.36	153.04
33	NMPC (Iligan Diesel II)		49.39	167.98	32.26		81.65	167.98
34	BUSCO BIOMASS COGEN**						0.00	0.00
35	ZAMBOANGA DIESEL		188.43	991.93	89.46		277.89	991.93
36	GENERAL SANTOS DIESEL		77.39	518.51	66.85		144.24	518.51
37	MINDANAO (MT. APO) GPP1*			5,423.10			0.00	5,423.10
38	MINDANAO (MT. APO) GPP 2*			5,081.86			0.00	5,081.86
39	PARAGUA (PALAWAN)			508.49			0.00	508.49
40	SUAL		2,594.46	1,318.01	1,217.74		3,812.20	1,318.01
41	BACMAN BINARY		52.95	15.99			52.95	15.99
42	BAKUN**		716.22	64.03			716.22	64.03
43	CBK **		599.10	1,457.23			599.10	1,457.23
44	SAN PASCUAL COGEN		723.13	2,353.69			723.13	2,353.69
45	ILIJAN NATURAL GAS		1,137.47	788.78	3,128.22		4,265.69	788.78
46	MINDANAO COAL*		694.04	1,571.70			694.04	1,571.70
47	CASECNAN **		671.09				671.09	0.00
48	SAN ROQUE**		2,333.10	3,625.50			2,333.10	3,625.50
	TOTAL		13,792.29	104,065.90	8,074.05	0.00	21,866.34	104,065.90

* With Fuel Cost Included
** No Fuel Cost
*** Assumes generation will be dispatched

CONTINGENT LIABILITIES
IPP LISTS
Table 5

			Performance Undertaking	Terms of Buyout/Termination Provision	Buyout/Termination Amount (yr 2000)	Value of Guarantee, $ M (yr 2000)
1	Ambuklao Hydro	ROL	None	All expenses incurred	-	-
2	Binga Hydro	ROL	None	From yr 0 to 6, all documented costs incurred less 85% of revenues earned; From yr 7 to 15, NPV of 70% of unrealised revenue based on ave. annual generation;	59.08	-
3	Makban Binary	BTO	None	NPV of remaining fixed service fee escalated from US $ Index of January 1992 discounted at US Federal Reserve 90-day T-Bill Rate	54.97	-
4	Malaya	ROM	None	Post-Completion: NPV of all remaining energy fees based on minimum offtake, discounted at last published CIRR for $;	187.79	-
5	Limay-Bataan Blocks A & B	BTO	None	Six Months Capacity Fee Payments + all costs incurred by the proponent including repatriation of personnel, cost of shipping equipment and cancelling contracts;	12.89	-
6	Navotas GT 1-3	BOT	Full	Post Completion: NPV of capacity fees of remaining years based on lower of nominated or contracted capacity ata a discount rate of CIRR;	20.94	20.94
7	Navotas GT 4	BOT	Full	Post Completion: NPV of capacity fees of remaining years based on lower of nominated or contracted capacity ata a discount rate of CIRR;	24.68	24.68
8	Naga Plant Complex	ROM	None	Operation: NPV of remaining energy fees based on minimum offtake, discounted at CIRR + all dislocation costs including credit facilities + 10%;	95.89	
9	Mindanao Barges 117 & 118 - 2 x 100 MW	BOT	None	Conditions 1 to 6 except 5: The value of equipment + 2 months capacity fees; Condition 5: yrs 5 to 10: capacity payments to yr 12; yrs 10 to 13: 2 yrs capacity payments; after 13, all future capacity fees;	29.44	-
10	Mt Apo II	BOO/PPA	None	No buyout provision	-	-
11	Mt Apo I	BOO/PPA	None	No buyout provision	-	-
12	Mindanao Coal	BOO	Full Guarantee	Pre-Completion: Aggregate of all costs, expenses & liabilities incurred by the IPP with a 12% ROE; Post-Completion: NPV of all remaining capacity fees & T/L fee discounted at WACC		Pre-completion Stage
13	Leyte-Luzon	BOO/PPA	None	No buyout provision		-
14	Leyte-Cebu	BOO/PPA	None	No buyout provision		-
15	Sual	BOT	Full Guarantee	Post-Completion: NPV of capacity fees(excluding fixed operating fee) for the remaining term of the contract based on nominated capacity discounted at CIRR;	2482.3	2482.3
16	Bacman Binary	BTO	None	NPV of remaining fixed service fee escalated from US $ Index of January 1992 discounted at US Federal Reserve 90-day T-Bill Rate	53.35	
17	San Pascual Co-Gen	BOO	Partial. But see Coverage at *	NPC Termination: NPC to draw on remaining bond at the time of termination;		Pre-completion Stage
18	Ilijan Natural Gas	BOT	Partial but coverage see **			Pre-completion Stage
19	Casecnan Multi-purpose	BOT	Full Guarantee	None		
20	Cavite EPZA:Magellan	BOO	None	Yrs 1 to 5: one year revenue Yrs 6 to 10: half year revenue	21.45	-
21	FPPC Bauang Diesel	BOT	Full	Post-Completion: NPV of capacity fees(excluding fixed operating fee) for the remaining term of the contract based on the lower of contracted or nominated capacity discounted at CIRR;	257.86	257.86
22	Pagbilao Coal	BOT	Full guarantee	Post-Completion: NPV of capacity fees(excluding fixed operating fee) for the remaining term of the contract based on nominated capacity discounted at CIRR;	1766.96	1766.96
23	Pinamucan	BOT	Full Guarantee	Post-Completion: NPV of capacity fees(excluding fixed operating fee) for the remaining term of the contract based on the lower of contracted or nominated capacity discounted at CIRR;	125.20	125.20
24	Iligan Diesel I	BOT	Full Guarantee	Post-Completion: NPV of capacity fees(excluding fixed operating fee) for the remaining term of the contract based on the lower of contracted or nominated capacity discounted at CIRR;	31.46	31.46
25	Iligan Diesel II	BOT	Full Guarantee	Post-Completion: NPV of capacity fees(excluding fixed operating fee) for the remaining term of the contract based on the lower of contracted or nominated capacity discounted at CIRR;	34.05	34.05
26	Subic Enron Diesel	BOT	Full Guarantee	Post-Completion: NPV of capacity fees(excluding fixed operating fee) for the remaining term of the contract based on the lower of contracted or nominated capacity discounted at CIRR;	188.01	188.01
27	General Santos Diesel	BOO	None	Post-Completion: NPV of capacity fees(excluding fixed operating fee) for the remaining term of the contract based on the lower of contracted or nominated capacity discounted at CIRR;	85.75	-
28	Zamboanga Diesel	BOO	None	Post-Completion: NPV of capacity fees(excluding fixed operating fee) for the remaining term of the contract based on the lower of contracted or nominated capacity discounted at CIRR;	150.45	-
29	San Roque	BOT	Full Guarantee	Pre-Completion: Aggregate of all costs, expenses & liabilities incurred by the IPP reduced by aggregate of any NPC Disbursements including provision for ROE investments at 12% per year on an after tax basis; Post-Completion: NPV of all remaining capacity and energy fees discounted at CIRR but in no case lower than the outstanding senior debt;	-	Pre-completion Stage
30	Bakun	BOT	Full Guarantee	Post Completion: NPV of capacity fees of remaining years based on Dependable capacity discounted at CIRR;	131.25	131.25
31	Bataan Diesel (Edison)	BOT	None	Yrs 1 to 5: one year revenue Yrs 6 to 10: half year revenue	9.91	
32	ACMDC (Toledo Mining)	BOT	None			
33	CBK	BROT	Full Guarantee	Pre-Completion: Sum of: (1) Aggregate of all costs, expenses & liabilities incurred by the IPP reduced by aggregate of any NPC Disbursements including provision for ROE investments at 10% per year and (2) remaining capital recovery fees attributable to the units; Post-Completion: NPV of all remaining capital recovery fees discounted at WACC but in no case lower than the outstanding senior debt;		Pre-completion Stage
34	HEDCOR	BOO	None		-	
35	NMHC	BOO	None		-	
36	NIA-Baggatan	BOO	None		-	
37	Janopol	BOO	None		-	
38	Mancarum	BOO	None		-	
39	Busco Bio Mass	BOO	None		-	
40	Paragua	BOO	None		-	
				TOTAL	5,823.68	5,062.71

III. MEDIUM TERM SCENARIO

A. Demand/Supply

1. The Power Industry

The electric power industry is currently composed of the National Power Corporation (NPC), various private power producers, and distributors comprising of electric cooperatives and municipal and privately owned utilities. Each distributor has been given franchise to operate alone in its particular region. The distributors purchase electricity either from NPC or from other private suppliers or some self-generation for distribution to end-users such as households, industries and commercial establishments. Aside from the distributors, there are also a number of directly connected industrial and miscellaneous users to NPC. To date, there are a total of 99 cooperatives and 17 private utilities and 5 government utilities acting as distributors and 95 NPC direct industrial connections and 59 miscellaneous customers. The largest distribution utility company is Meralco which distributes electricity in Metro-Manila and outlying areas.

2. Power Demand

As shown in Table 6, Load Forecast, the country's demand for electrical energy as measured in GWh will be growing at an average rate of 8.3 percent for the next five years, 2000 - 2004. Peak demand, which represents the maximum load in the system and is measured in MW is estimated to rise at almost the same rate of 8.2 percent per annum to reach 10,495 MW. Majority of the system requirement will still be sourced from NPC, but an alarming decline in NPC's share of the power market both in energy and demand capacity is expected. In 1999, NPC supplied about 90 percent of the total power market demand. This percentage is projected to decrease to 70 percent in 2004. Likewise, capacity requirement from NPC decelerates from 90 percent in 1999 to 73 percent in 2004. This decline in NPC's load is due to the entry of non-NPC IPPs especially those of Meralco and the growing self-generation in the provinces. These non-NPC IPPs and self-generation are rapidly eating up NPC's market.

The power requirement of the Luzon system which accounts for 77 percent of the country's total demand, is projected to reach 45,322 GWH in 2004 from 31,334 GWH in 1999. This is equivalent to an average annual growth of 7.7 percent for the period. Despite the anticipated growth in electricity demand, NPC's sales shows a marked decline beginning last year because of a reduction in the purchases of Meralco, the country's largest distributor of electricity and NPC's biggest client. The coming of the Quezon Power and the First Gas Power Corporation is expected to further bring down NPC's electricity sales. The provincial load, although growing, cannot compensate for the reduction in sales to Meralco.

In Mindanao, the load requirement until 2004 is expected to attain an 11.3 percent average growth. From 5,087 GWh, system sales is projected to increase to 8,676 GWh. NPC sales is growing similarly at the same pace as the system sales. This is to be expected as only a small percentage of sales in the region comes from the non-NPC IPPs or self-generation. Only a level equal to 169 GWh is assumed to come from these other generators. Mindanao accounts for 12.5 percent of the market.

The Visayas region requires the least amount of electricity among the three major island grids accounting for only 10.2 percent. The power requirement in the region is anticipated to grow by an annual average of 9.0 percent until 2004. This means an increase from 4,146 GWh in 1999 to 6,373 GWh in 2004. In terms of mega-Watt demand, from 877 MW realized in 1999 a total load of 1,279 MW is expected by 2004. NPC's load in the region, however has contracted as a number of its customers has reduced their purchases from the Corporation and opted to self-generate or buy from other players in the area of private power generation. These are the Cebu Private Power Corporation (73Mw) and East Asia Power (47Mw) serving VECO, the largest distributor in the region and the Mactan Ecozone and the Panay Power Company (72Mw) which has just operationalized to supply the requirement of the retailer PECO.

3. Power Supply

(i) Supply from NPC

The National Power Corporation remains the major supplier of electricity throughout the country. From the Company's present capacity of 10,520 MW, the Corporation in its latest Power Development Program is proposing additional capacities totaling 5,926 MW from the present until 2010, the regional distribution of which are as follows: 3,355 MW in Luzon, 1,173 MW in Visayas and 1,398 MW in Mindanao.

Of the capacity additions, NPC has already entered into contract with the private sector for the 1000-MW Sual coal plant, the 70-MW Bakun hydro, the 140-MW Casecnan, the 1200-MW Ilijan natural gas plant, the 300-MW San Pascual cogeneration plant, the 300-MW Kalayan 3/4 and the 345-MW San Roque hydro plant which are all in Luzon. In Mindanao, only the 48-MW Mt. Apo II has been contracted out and none yet in Visayas.

NPC's available capacity is more than enough to meet the demand of its present customers. The existence of the other private generation makes the aggregate system supply exceeds the demand until 2004-2005.

(ii) Supply from non-NPC IPPS

Executive Order No. 215 effectively removed NPC's monopoly in generation and allowed the private sector to generate electricity for sale to distributors, ecozones and large industries. Driven by the rapidly growing demand for power in the country, participation from this sector unsurprisingly surmounts. Shown in Table 7 is a list of non-NPC IPPs and self-generation capacities. Existing capacities aggregates to more than 1,200 MW and the incoming ones have a total of more than 1,800 MW. More additions to this list is expected if the Department of Energy continues to accredit interested private investors and allow them to build own generating plants.

4. Current Dispatch Problem

The dispatch of the system is being done at NPC. NPC follows a least cost approach in its dispatch of power plants with the objective of meeting the demand at all times with appropriate margin for reserve. Power plants of NPC and its IPP contracted capacities, except for some with minimum energy off-take (MEOT) provisions that in effect makes them priorities in the dispatch, are assigned a merit order cost and are subjected to economic merit order. Merit order cost of the generating plant is a combination of the fuel cost and the efficiency of the plant.

Causing problem in NPC's dispatch are some non-NPC IPP plants and self generating units which are not synchronized to the system and therefore are not subject to the economic merit order of NPC. Most of these plants have contracts with their clients which requires MEOT. Therefore, these plants are practically being used as baseload plants even if there maybe some NPC or NPC-IPP plants that are cheaper. These plants in effect displace the NPC capacities including its IPP contracted capacities, which becomes stranded.

5. One Day Power Sales and Dump Power Sales

In order to sell some of its excess generation, NPC offers to the market new products-the one day power sales and the dump power sales. These new products of NPC are being sold at competitive rates.

(i) One Day Power Sales

The One Day Power Sales or ODPS is being offered throughout the country in Luzon, Visayas and Mindanao on a daily basis for specific hours or time blocks of the day to customers of NPC with self-generation. It is intended to give the qualified buyer an alternate source of power that is competitively priced. If the qualified buyer finds that the ODPS is cheaper than the cost of operating its own plant, then he may opt to just shut down its plant and purchase ODPS from NPC. NPC sets out the following qualifications requirement for an interested buyer to avail of ODPS:

- NPC directly connected bulk power customers, distribution utilities, and power consumers inside the distribution utility's franchise area that are generating their own power requirement regularly whether for partial or total requirement;

- Clustered power consumers or consumers grouped together in one location with one delivery point, has one owner and with self-generating unit that is for common use by its customers;

- IPPs with bilateral contract with the customers of NPC or which have ancillary service contract with NPC;
- Distressed ferroalloy industries in Mindanao.

Since June 1998 when the ODPS was introduced, NPC was able to realize more than ₱200 million in gross revenue by selling more than 250 gWh from this program. In terms of net revenue, NPC has generated almost ₱100 million since the program's implementation.

(ii) Dump Power Sales

Introduced only in Mindanao, the dump power program is being offered to financially-distressed industries in the region. The customers are given 50 percent discount for electricity consumed over and above the customer's average normal consumption for the last twelve months prior to the offering of the program. The program is being offered only by the Corporation when there is excess generation from its hydro facilities. The offer was first started in 1997. In the following year of 1998, it was temporarily suspended due to the El Nino phenomenon. The program was revived in 1999 following the unusually high water level from Lake Lanao which powers the Corporate-owned Agus power complex in the area.

At least nine industries in the region have been availing of the discounted power rates under the dump power program and the number is expected to further increase.

In 1999, NPC's estimate of additional revenues out of this program is about P35 million per month or an equivalent 53 gWh per month additional sales from the dump power.

6. Franchise Issue

The Revised Charter of the National Power Corporation gives the NPC the power:

"to establish, develop, operate, maintain and administer power and lighting systems for the transmission and utilization of its power generation; to sell electric power in bulk to (1) industrial enterprises, (2) city, municipal or provincial systems and other government institutions, (3) electric cooperatives, (4) franchise holders, and (5) real estate subdivisions: Provided that the sale of power in bulk to industrial enterprises and real estate subdivisions may be undertaken by the Corporation when the power requirement of such enterprises or real estate subdivisions is not less than 100 kilowatts "...

Given the above, NPC can supply electric power in bulk to any customer as long as the power required is at least 100 kilowatts.

It appears that the present status of the electricity industry does not follow nor respect the rights and authority of NPC under its charter. The present practices of the electric distributors and franchise holders of preventing NPC to directly connect interested customers located within the franchise areas of the former unless the customer has secured a waiver from them or has executed a written agreement between him and the franchise holder allowing them to connect to NPC clearly shows no respect for the NPC charter. The distributors always insist on the exclusivity of franchise hence according to them priority is theirs in the service of power to customers located within their franchise. This situation prevents the qualified end-user from directly procuring bulk power supply from NPC and thus makes it difficult for NPC to penetrate the end-user market.

While the Energy regulations require that the franchise holders match the rates of electricity and the quality of service being offered by NPC, it is apparent that most of them if not all are not able to do so. This is clearly manifested when most of the end-users prefer to self-generate their own electricity requirement or purchase needed power from independent power producers which according to them are bought at lower cost.

7. Extent of Stranded IPP Generation

Table 8 shows the potential stranded generation of the IPP plants based on the 'merit order' dispatch prepared by both the System Operations (2000, 2001) and Systems Planning (2002 upwards) groups of NPC. The dispatch was made assuming a "normal' sales scenario.

Based on the Table, the stranded generation over the next five years are:

Year	Projected Stranded Generation (GWh)
2000	28,623.48
2001	27,799.72
2002	23,443.15
2003	25,290.80
2004	25,130.67
2005	24,368.39

The stranded generation from the IPP alone reaches upwards of 20,000 GWh.-almost 85% of actual requirement of NPC customers. Note that in some cases, as in the Malaya plant operation, no dispatch was actually assigned beyond 2002 even though its ROM contract is still effective.

B. Financial Situation

NPC has consistently been the largest corporation in the Philippines in terms of assets and sales. Its sales for 1998 was 86.6 billion pesos and its assets totalled 646 billion pesos. For the period 1994 to 1997, NPC's operating income averaged 12 billion pesos and 5 billion pesos for net income. However, in 1998, its operating income dropped by 40 percent to 6.9 billion pesos from the previous year's 11.6 billion pesos and it suffered a net loss of 3.6 billion pesos. The reason for the forgoing is a cocktail of poor sales growth, increased operating expenses and the peso devaluation. Sales growth contracted to only 2.4 percent. This was due to the lingering economic slump that begun during the Asian economic crisis in midyear 1997 that caused a slowdown in the industrial sector's demand and NPC's loss of market share in the Visayas to several independent power producers. This low sales growth contributed to the increased operating expenses as a result of unutilized capacity which compounded the higher fuel cost due to the peso devaluation. The peso devaluation also increased NPC's interest cost and largely contributed to the net loss.

NPC's 1999 financial performance continued the declining trend. While operating income managed a 23% increase from 6.9 billion pesos in 1998 to 8.5 billion pesos in 1999, its net loss further ballooned to 5.9 billion pesos in 1999 from 3.6 billion pesos in 1998. The major culprits are interest expense which increased by almost 18 percent and losses from foreign exchange fluctuations.

The next five years do not look better. In fact, NPC's financial situation will look worse.

While NPC manages to have positive operating income it does not foresee a net income over the next five years.

In Billion Pesos

	1998	1999	2000	2001	2002	2003	2004
Sales, GWH	37,321	36,929	35,491	36,846	38,929	40,658	42,277
Operating Income	6.9	8.5	8.4	12.7	8.2	6.6	6.4
Net Income (Loss)	**(3.6)**	**(5.9)**	**(8.2)**	**(5.3)**	**(10.9)**	**(10.4)**	**(8.9)**
% Return on Rate Base	3.22	3.40	3.41	5.10	3.47	2.63	2.52

NPC's internal cash generation will not be able to cover its debt service. It will need huge additional borrowings to cover its capital expenditures and still incur deficits.

In Billion Pesos

	2000	2001	2002	2003	2004
Internal Cash Generation	26.3	27.3	20.9	21.3	21.3
Debt Service	42.6	35.5	37.3	30.7	29.1
Capital Expenditures	19.3	27.1	26.5	17.6	11.5
(Deficit) / Surplus	**(6.6)**	**(22.0)**	**(37.3)**	**(30.2)**	**(21.4)**
Debt Service Cover	0.73	0.81	0.71	0.78	0.82

Funding shortfalls have always been covered through additional borrowings and tariff increases. The deficits shown above is net of programmed additional borrowings as follows:

In Billion Pesos

	1999	2000	2001	2002	2003	2004
Additional Borrowings	**18.5**	**25.3**	**19.0**	**24.0**	**10.1**	**5.5**
MIYASAWA	6.6	4.0	5.2			
JEXIMBANK	10.2	5.6				
NEW FACILITY	6.9	12.0		6.0		
Other Loans in Place		7.5	8.3	4.9	0.6	1.0
Loans under Negotiation			4.8	8.5	6.9	4.5
Loans to be Obtained			0.7	4.6	2.6	
Grants		0.2				
Bond Proceeds		1.6				
Sale of Generating Plants	2.1					
Security Deposit	2.8					
San Roque JEXIM Loan	(10.1)	(5.6)				

For NPC to meet the 8.0 percent return on rate base covenant with the World Bank and the Asian Development Bank and meet a 1.0 debt service coverage ratio from 2000 to 2004, it has to increase its basic rate by around 50 centavos in the year 2000.

The above figures are based on "normal" sales. The situation becomes worse under a "reduced" sales scenario whereby Meralco does not honor its 3,600-MW with NPC, but instead maximizes the volumes that it sources from its IPPs (thereby reducing its purchases from NPC).

Meralco's supply contracts consist of a 10-year 3,600-MW supply contract with NPC which expires in 2004, and power purchase agreements with some of its IPPs.

This issue is still being negotiated by NPC and Meralco. Meralco may not continue to purchase from NPC all its 3,600–MW contracted capacity. For one, Meralco claims that such contract is null and void because NPC failed to meet one of the contract's conditions, i.e. that NPC turn over some of its directly-connected customers to Meralco. In addition, Meralco's IPP contracts will become stranded assets as it will experience oversupply. This is because most of Meralco's contracts with its IPPs have minimum energy offtake agreements. Furthermore, some level of cross-ownership exists between Meralco and its IPPs. As a distributor, Meralco can pass through to its customers the cost of its purchased power. It would therefore be in its interest to source power from its IPPs.

If Meralco indeed reduces its purchases from NPC, the figures will be worse as follows:

In Billion Pesos

	2000	2001	2002	2003	2004
Sales, GWH	30,043	32,918	35,574	38,783	42,277
Operating Income	2.0	9.2	6.9	6.1	6.4
Net Income (Loss)	(14.7)	(8.8)	(12.3)	(10.9)	(9.0)
% Return on Rate Base	0.81	3.70	2.92	2.46	2.52
Internal Cash Generation	21.0	23.6	19.6	20.4	20.8

	2000	2001	2002	2003	2004
Debt Service	42.6	35.5	37.3	30.7	29.1
Capital Expenditures	19.3	27.1	26.5	17.6	11.5
(Deficit) / Surplus	**(11.7)**	**(25.8)**	**(38.5)**	**(31.1)**	**(22.1)**
Debt Service Cover	0.73	0.75	0.69	0.77	0.81

The main reason for NPC's dismal financial performance are declining sales and high interest expense.

As have been noted earlier, because of Executive Order 215, distributors were allowed to purchase power from independent power producers. As such, the capacity contracted by the distributors have effectively displaced NPC sales. Consequently, NPC's operating expenses balloon as a result of under utilized capacity. NPC has to bear the burden of its minimum off take agreements with its own independent power producers even as these are not sold.

The other cause is high interest expense. This is due to the NPC's fragile financial capital structure that has been magnified by the Asian currency crisis. In NPC's 65 years of existence, the government has infused only a total of 27 billion pesos in equity (23.3 billion pesos in cash and 3.8 billion pesos in dividends). This is equivalent to less than 5 percent of its 1999 total assets of 862 billion pesos. NPC has been heavily relying on foreign borrowings to finance its capital expenditures. As of 1999, its long-term debts and capital lease obligations totalled 239 billion pesos and 406 billion pesos, respectively. NPC's operating income does not even cover the interest expense on these loans. And its obligations on its capital leases is a heavy burden on its operations and finances. It is therefore not surprising that its cash flow shows huge deficits through out the next five years.

What are the options available to NPC? NPC may increase its tariffs which has always been resorted to in the past. However, the Philippine's electricity tariff is already one of the highest in Asia. Moreover, a tariff increase is politically not tenable. And what is essentially a balance sheet problem should not be addressed by profit and loss operations, i.e. tariff increases.

The issue must be addressed by using balance sheet tools. NPC may continue on borrowing. But it does not make sense to further increase NPC's debt as it is already over leveraged. Furthermore, it would be difficult to raise debt with a consistent projected income loss. A better alternative would be to restructure the maturity of NPC's obligations. The ideal long-term solution, of course, is for government to infuse equity into NPC. Given the government's policies and fiscal position, this is not possible. The only option left is for government to tap private capital to infuse into NPC by restructuring the industry and privatizing NPC.

Table No. 6
LOAD FORECAST

		1999	2000	2001	2002	2003	2004	1999-2004 % G.R.
Energy Sales, In Gwh								
Luzon								
	System	31,334	32,887	35,516	38,500	42,207	45,322	7.7
	NPC	28,418	26,771	27,488	28,003	28,393	28,864	0.3
	NPC Share, %	90.7	81.4	77.4	72.7	67.3	63.7	
Visayas								
	System	4,146	4,516	4,978	5,533	5,922	6,373	9.0
	NPC	3,006	3,280	3,565	4,211	4,554	4,956	10.5
	NPC Share, %	72.5	72.6	71.6	76.1	76.9	77.8	
Mindanao								
	System	5,087	5,452	5,962	7,043	8,049	8,676	11.3
	NPC	4,994	5,283	5,793	6,715	7,711	8,457	11.1
	NPC Share, %	98.2	96.9	97.2	95.3	95.8	97.5	
Total								
	System	40,567	42,855	46,456	51,076	56,178	60,371	8.3
	NPC	36,418	35,334	36,846	38,929	40,658	42,277	3.0
	NPC Share, %	89.8	82.5	79.3	76.2	72.4	70.0	
Peak Demand, In mW								
Luzon								
	System	5,342	5,607	6,055	6,564	7,196	7,727	7.7
	NPC	4,856	4,847	4,984	5,092	5,140	5,210	1.4
	NPC Share, %	90.9	86.4	82.3	77.6	71.4	67.4	
Visayas								
	System	877	950	1,031	1,128	1,207	1,279	7.8
	NPC	684	690	765	858	928	995	7.8
	NPC Share, %	78.0	72.6	74.2	76.1	76.9	77.8	
Mindanao								
	System	869	936	1,023	1,365	1,444	1,489	11.4
	NPC	840	907	994	1,332	1,413	1,460	11.7
	NPC Share, %	96.7	96.9	97.2	97.6	97.9	98.1	
Total								
	System	7,088	7,493	8,109	9,057	9,847	10,495	8.2
	NPC	6,380	6,444	6,743	7,282	7,481	7,665	3.7
	NPC Share, %	90.0	86.0	83.2	80.4	76.0	73.0	

Note:
NPC sales excluding SPUG/IBMD

Table 7
LIST OF NON-NPC IPPs/Self-Generation Power Facilities

Proponent	Plant Type	Capacity (MW)	Schedule of Comm'l Oper.	Plant Capacity Factor, %
MERALCO Area				
Duracom Mobile Power Corp.	Oil	108.0	December, 1996	44
		108.0	October, 1999	44
Bulacan Biomass Power Corp.	Rice Hull	35.0	2000	80
First Gas Power Corp.	Nat Gas	500.0	November,1999	83
		500.0	October, 2000	83
		500.0	October, 2003	83
Quezon Power, Inc.	Coal	433.0	December, 1999	85
Magellan Utilities Dev. Corp.	Coal	300.0	January, 2004	75
LUZON PROVINCIAL				
Angeles Power, Inc.	Oil	30.0	May,1994	70
First Cabanatuan Ventures Corp.	Oil	12.8	February, 1996	55
		12.8	1999	55
		6.4	2001	55
Isabela El. Coop. I	Oil	2.5	1992	30
PNOC	Oil	3.0	July, 1994	46
Tarlac Power Corp.	Oil	12.6	July, 1995	75
		6.3	February, 1998	75
Asin Hydro	Hydro	4.2	August, 1985	29
Hydro El. Dev. Corp.	Hydro	12.1	September, 1991	40
Northern Mini Hydro Corp.	Hydro	6.0	August, 1992	85
Clark Power	Oil	21.5-48.5	1999	62
Zameco Power Corp.	Oil	8.0	1998	
Edison Global Elec. Ltd.	Oil	32.0	June, 1994	58
Philex Mines	Oil	2.0	1994	
United Coconut Chemicals, Inc.	Cogen	3.0		70
		10.0	2001	70
United Pulp and Paper Company	Oil	18.0	1999	75
Solid Dev./Hopewell Mobile Power	Oil	13.0	1998	75
Trans Asia Power/Hi Cement	Oil	60.0	1998	75
VISAYAS				
Cebu Private Power Corp.	Oil	73.0	1998	75
East Asia Utilities MEPZA	Oil	47.4	1998	75
Panay Power Corporation	Oil	72.0	1998	75
Philphos	Cogen	10.0	1999	70
MINDANAO				
Minergy Corp.	Oil	18.0	1995	NA
PSC	Oil	5.5	1992	NA
DLPC	Oil	42.2	1980s	NA
CLPCo	Oil	9.9	1980s	NA

PROJECTED STRANDED IPP GENERATION
Table 8

		Capacity, MW		Energy, Gwh		End of Cooperation Period	Projected Energy Dispatch, GWh						Projected Stranded IPP Generation, GWh					
		Contracted	Dependable	Contracted	Available		2000	2001	2002	2003	2004	2005	2000	2001	2002	2003	2004	2005
1	Subic-Enron	108 00		946.08	832.55	2009	279 80	294.40	12.00	31.00	30 00	21.00	(552.75)	(538.15)	(820.55)	(801.55)	(802 55)	(811.55)
2	Pinamucan	105 00		781.83	664 46	2003	187 90	193.00	23.00	50 00	76 00	48 00	(476 56)	(471.46)	(641.46)	(614 46)		
3	Ilgan I	58.00		465 91	424.15	2003	14 40	14.16	41.00	502.00	10.00	12.00	(409 75)	(409.99)	(383 15)	77 85		
4	Ilgan II	40 00		322 37	280.61	2005	14.40	14 16	5 00	287 00	10.00	12.00	(266 21)	(266.45)	(275.61)	6 39	(270.61)	(268 61)
5	Bauang	215 00		1695 06	1462 86	2010	467 70	487 40	35.00	81 00	105 00	69.00	(995.16)	(975.46)	(1427 86)	(1381 86)	(1356.86)	(1393 86)
6	Pagbilao	700 00		4905 60	3924 48	2015	3146.30	3047.80	2534 00	2652.00	2954 00	2978.00	(778.18)	(876.68)	(1390 48)	(1272.48)	(970 48)	(946 48)
7	Toledo (ACMDC)	55 00		481 80	481.80	2003	49.25	120.45	489.00	489.00			(432.55)	(361 35)	7 20	7.20		
8	Zamboanga	100 00		744.60	613.20	2015	87 84	87.60	503 00	714 00	12.00	17.00	(525.36)	(525 60)	(110.20)	100 80	(601.20)	(596.20)
9	General Santos	50 00		372 30	306 60	2015	87 84	87 60	356 00	356.00	6.00	87.00	(218 76)	(219.00)	49 40	49 40	(300.60)	(219 60)
10	Mindanao Geo (Mt Apo II)	48.25	20 83	422.67	398.00	2024	394.00	394 00	345.50	345.50	345 50	345.50	(4 00)	(4 00)	(52 50)	(52.50)	(52.50)	(52 50)
11	Mindanao Geo (Mt Apo I)	47.00		411.72	377.88	2022	394.00	394.00	345.50	345.50	345.50	345.50	16.12	16.12	(32 38)	(32.38)	(32.38)	(32.38)
12	Leyte-Cebu	200 00		1370 00	1233.00	2022	1370.00	1370 00	2349.00	2616 00	2754.00	3168 00	137 00	137 00	1116 00	1383.00	1521 00	1935 00
13	Leyte-Luzon	440 00		3000 00	2700.00	2023	3208 90	3248.80	610 00	243.00			508.90	548.80	(2090 00)	(2457 00)	(2700 00)	(2700.00)
14	Mindanao Coal	200 00		1752 00	1440 00	2030							(1440 00)	(1440 00)	(1440 00)	(1440.00)	(1440.00)	(1440 00)
15	Ilijan Natural Gas	1200 00		10512.00	10512.00	2022			8387.00	8387.00	6661.00	6247.00	(10512 00)	(10512.00)	(2125.00)	(2125.00)	(3851.00)	(4265 00)
16	Malaya I	300.00	290.00	2365 20	2122 60	2010	715.40	782.30					(1407.20)	(1340.30)	(2122.60)	(2122 60)	(2122.60)	(2122.60)
	Malaya II	350.00	340 00	2759.40	2488.80	2010	688 60	711.50					(1800.20)	(1777.30)	(2488.80)	(2488.80)	(2488.80)	(2488 80)
17	Navotas LBGT 1-3	210 00		1287.72	1287.72	2003							(1287.72)	(1287.72)	(1287 72)	(1287.72)		
18	Navotas LBGT 4	100 00		613.20	490.70	2005							(490.70)	(490.70)	(490.70)	(490.70)	(490.70)	(490 70)
19	Subic-Enron	108 00		832.55	818.93	2009												
20	Naga Salcon Complex																	
	Naga LBGT	55 00		240 90	192 72	2009	3 41	4 07					(189 31)	(188 65)	(192 72)	(192 72)	(192.72)	(192 72)
	Naga CDPP1	43 80		287 77	215 82	2009	3 01	33.11					(212 81)	(182 71)	(215 82)	(215.82)	(215 82)	(215 82)
	Naga CTPP2	56 80		398 05	318.44	2009	44.42	91.54	48.00	65.00	268.00	331.00	(235.90)	(188.78)	(232.32)	(215.32)	(12.32)	50 68
	Naga CTPP1	50 00		350.40	280 32	2009	40 12	83.22	50.00	70.00	327.00	324.00	(50.28)	(7 18)	(40 40)	(20.40)	236 60	233.60
21	Makban Binary	15 70	12.9	110.24	90.40	2004	11.10	40 00	104 00	104.00	104.00	104.00	(79.30)	(50 40)	13.60	13.60	13.60	
22	Bacman Binary	15 73	12 9	110.24	90 40	2009							(90 40)	(90 40)	(90.40)	(90 40)	(90.40)	(90 40)
23	Binga HEP	100 00		876 00	300.00	2008	475 90	475 90	371.00	371 00	371.00	371.00	175 90	175.90	71.00	71.00	71.00	71 00
24	CBK Project	754 12		6124.29	2190.06	2028				295.00	207.00					(1895 06)	(1983.06)	(2190 06)
25	San Pascual Co-Gen	304 00		2663.04	2263 59	2028				878.00	831.00					(1385 59)	(1432.59)	(2263 59)
26	Sual Coal	1000 00		8760.00	7440 00	2024	4748.10	4968 70	5106.00	5425 00	6380.00	6740.00	(2691 90)	(2471.30)	(2334 00)	(2015 00)	(1060 00)	(700 00)
27	San Roque MP	345 00	85.00	2400 00	1050.00	2029						1087 00	(1050.00)	(1050.00)	(1050.00)	(1050.00)	(1050.00)	37 00
28	Casecnan MP	140 00		425 00	395.00	2019	114.00	228.00	233.00	233.00	233.00	233 00	(281 00)	(167.00)	(162.00)	(162.00)	(162.00)	(162.00)
29	Bakun HEP	70 00	27.50		613.20	2026		242.80	245.00	245.00	245.00	245 00	(613 20)	(370 40)	(368 20)	(368.20)	(368.20)	(368 20)
30	Cavite Magellan	63 00			551 88	2004	202 10	190.80	411 00	411.00	411.00		(349.78)	(361 08)	(140 88)	(140 88)	(140 88)	
31	Bataan CC	600 00		4362 48	4128.00	2009	1250 50	1184 90	1.00	12.00	10 00	7.00	(2877.50)	(2943.10)	(4127 00)	(4116 00)	(4118 00)	(4121.00)
	Mindanao Barges	200 00		1489 20	1360 00	2009												
32	PB 117	100 00					263.52	306.60	593.50	594.30	554.04	595 09	263 52	306 60	593 50	594 30	554.04	595.09
33	PB 118	100.00					474 64	569 40	895.50	896.70	835.96	897.91	474.64	569 40	895.50	896.70	835.96	897 91
34	Ambuklao	75 00			70 00	2000	175.30						105.30					
35	Edison Global (Bataan)	58 00		508.08	329 00	2003												
36	NMHC	6 00			45.00	2017	56 81	56.81	21.70	21.70	21 70	21.70	11.81	11.81	(23.30)	(23 30)	(23 30)	(23 30)
37	HEDCOR	12.05			55.00	2016	56 81	56 81	21.70	21.70	21.70	21.70	1.81	1.81	(33.30)	(33.30)	(33.30)	(33 30)
38	Paragua	16 00				2008												
													(28623.48)	(27799 72)	(23443 15)	(25290 80)	(25130.67)	(24368.39)

IV. PROPOSED RESTRUCTURING

It is the government's plan to restructure the electricity supply industry and privatize NPC with the end in view of rectifying NPC's capital structure. To date, towards this objective, there are several versions of the Omnibus Bill that are pending in both houses of congress. Essentially, the restructuring of the industry calls for the unbundling of the NPC into the generation and transmission businesses. One national transmission company (Transco) and several generation companies (Gencos) will be created and privatized. The transmission business is a natural monopoly while competition will be introduced in the generation sector. The degree of competition among Gencos may either be at the wholesale or retail level. Retail competition will require the unbundling of the distribution business into wires and supply. This will have a big implication on the valuation of NPC's successor companies as retail competition will allow direct access to the end consumer.

It is envisioned that for effective competition in the generation sector, there will be at least six Gencos. The Gencos will be structured in such a way that they are competitive in terms of generation capacity with a generation mix that will ensure that no Genco will monopolize any part of the load curve or geographical location. NPC's current Independent Power Producer (IPP) contracts will be allocated to the Gencos to the extent that it can be economically absorb, with the remainder to be grouped under an IPP Manager in the NPC Holding Company.

NPC has provided the study group with the following table showing the proposed successor companies with the Genco composition inclusive of the allocated IPP contract. There is, however, a need to review the IPP assignments since some of the plants have already been retired as in the Clark Diesel and Power Barges 201 to 209, and the GT Barge 4 and GT Barge 1-3 of Hopewell were assigned to two different Gencos.

COMPANY	POWER PLANTS	IPP CONTRACTS
GENCO 1	Calaca Coal I Calaca Coal II Magat Hydro Bataan 1 Bataan 2 Bataan GT Malaya GT	Cebu Diesel 1 Cebu Thermal 1 Cebu Thermal 2 GT Land Based 1 GT Land Based 2 FT1-GT Hopewell 2 (Tileman) Clark Diesel Malaya 1 Malaya 2
GENCO 2	Masinloc Coal Sucat 1-4 Manila 1-2 Sucat Land Based GT Angat Hydro Pantabangan/Masiway	Casecnan PB 117 / 118 Gas Turbine 201-209 San Pascual Sual
GENCO 3.	Bac-Man I Bac-Man II Pulangui 4 Agusan Talomo Loboc Hydro Amlan Hydro Bohol Diesel Cebu Diesel II Panay Diesel 1 Panay Diesel 2	Enron Pinamucan Gen Santos Mt. Apo Geo ACMDC Tomen 58 Tomen 40
GENCO 4	Palimpinon 1 & 2 Tongonan Geo	Bac-Man Binary
GENCO 5	Agus 1 Agus 2 Agus 3 Agus 4 Agus 5 Agus 6 Agus 7	Binga Edison GT Hopewell Enron Subic FPPC Ambuklao
GENCO 6	Tiwi Mak-Ban I Mak-Ban II	Mak-Ban Binary
NPC HOLDINGS		CBK HEDCOR NIA-Baligatan Leyte-Luzon Leyte-Cebu FELS I FELS II

COMPANY	POWER PLANTS	IPP CONTRACTS
		Van Der Horst I & II Magellan Cavite Pagbilao Coal Sual Coal Bataan (Limay) CC San Roque Bakun Ilijan Natural Gas Project
TRANSCO		

A. MODEL

1. Valuation Methodology

The Discounted Cash Flow (DCF) approach was adopted as the valuation methodology rather than the Multiples approach.

As NPC goes through a period of tremendous change, both internally and industry-wise, multiples may not properly approximate its true market value. There is no other listed comparable company in the Philippines. (The nature and inherent risks of distributor Meralco's business is different and not comparable with NPC's). Using multiples outside the country may cause us to compare companies at different stages in their development, or which have different underlying market, economic and regulatory conditions. Furthermore, the Philippine stock market has been quite volatile recently.

A DCF allows us to quantify long-term value, which is key because each of the Gencos will eventually operate as merchant plants and will therefore be a going business. It also frees us from distortions arising from differences in accounting methodologies between firms. And, all our assumptions will be transparent in a DCF, suitable for the conduct of sensitivity analyses to identify and assess key parameters that drive value.

The total value of NPC was determined by adding up the equity value of the Gencos, the Transco and the Holding Company. The free cash flows of the successor companies were computed and discounted by the appropriate weighted average cost of capital to obtain the equity values before debt. The present value of NPC's debt was then deducted to obtain NPC's net value. The IPP obligations were allocated to the Gencos and the Holding Company and already part of their respective equity value.

2. Data and Assumptions

Data used in the financial model were provided by NPC based on its financial projections for the years 2000 to 2004. Other data needed in the financial model which were not provided by NPC were assumed and the basis for the assumption discussed. It is expected that the generation business will be competitive and we have assumed that the competitive variable tariff is 4.5 U.S. cents (2 pesos).

(i) Volume and Income Projections

NPC has provided the following information:

- Current Structure;
- Pro-forma Income Statements and Balance Sheets from 1999 – 2005 pertaining to the current NPC structure ("NPC whole") under the "Normal Sales" and "Reduced Sales" scenarios which includes:
    1. GWH sales volume projections;
    2. Revenue Projections (product of sales volume and tariff projections);
    3. Operating Expenses Projections;
    4. Net Operating Income (Revenue less Operating Expenses);
    5. Interest Expense Projections;
    6. Net Income / (Loss) Projections
- Energy generation volume projections in terms of Gwh per year from 2000-2005 for each NPC plant and IPP under each "Normal Sales" and "Reduced Sales" scenario;
- Restructured Industry Structure
- The allocation of NPC's IPPs to the Gencos and the Holding Company with their respective generation schedules under the "normal" and "reduced" sales scenarios.
- Net Operating Income (Earnings Before Interest and Taxes) projections for each of the Gencos, for TRANSCO and for NPC Holding Company under the restructured industry structure for the "Normal Sales" scenario only.
- The data used for the generation and transmission companies under the restructured industry structure for the "Reduced Sales" scenario was derived as follows:
    1. Net Operating Income projections by:
        - Applying the percentage transmission loss under the "Normal Sales" scenario to energy generation under "Reduced Sales" to derive the energy sales under "Reduced Sales" for each NPC plant and IPP;

- Applying the variable cost per unit of generation (in P/kwh) to energy generation under "Reduced sales to derive variable cost under "Reduced Sales" for each Genco. (Transco's costs are mainly fixed.)

- Using the same fixed costs in "Normal Sales" for each entity under "Reduced Sales"

2. Free Cash Flows

- Based on the foregoing, the Net Operating Income (Earnings Before Interest and Taxes) of each of the Gencos, Holding Company and Transco was determined. The Gencos' and Holding Company's EBIT includes the IPPs.

- A tax rate of 32% was applied to Net Operating Income (Earnings Before Interest and Taxes) to derive Earnings Before Interest After Taxes for each year of the forecast horizon;

- Non-cash items consisting of depreciation/depletion was added back;

- Working capital, when taken into account, consists of:

1. Power Utility Receivable	45 days
2. Fuel inventory	60 days
3. Accounts Payable	45 days

- Capital expenditure, when taken into account averaged US$ 0.5 billion. This figures have been provided by NPC and are in real Peso terms

(ii) Weighted Average Cost of Capital (WACC)

The discount rate used to derive the present value of the free cash flows is based on the calculated Weighted Average Cost of Capital (WACC) of each entity. The WACC was derived using the capital asset pricing model (CAPM).

The base case WACC is 16% nominal and 13% real for generation companies and 14.2% nominal and 11.2% real for the transmission company using the estimate US inflation rate of 3.0%.

The assumptions are based on certain industry data and statistics from comparable utilities in the region.

GENCO WACC

To determine the WACC of 16 percent for each Genco, we used a 60% debt and 40% equity ratio which is the target capital structure for each Genco and consistent with those of industry comparables. The cost of equity is 27.8%. This is the sum of Risk-free rate for power generation in the Philippines of 17.62 percent and product of the average of the unlevered betas of 0.51 certain Thai utilities which was relevered according to a 60% debt to total market value (i.e. market value of debt plus market capitalization) ratio, and a market premium (total risk premium) of 8.0% based on two years' data.

	%	BASIS
Risk-free rate, Rf	6.37	Yield on 10-yr US Treasury Bonds, 2/22/00
Political Risk Premium	3.25	Bid spread of RoP 2008 Bonds, 2/22/00
Philippine Risk-free rate (US$)	9.62	
Currency Risk Premium	5.00	Estimated offshore currency swap premium
Philippine Risk-free rate (Peso)	14.62	
Business Risk Premium	3.00	For Generators, US FERC, 1997
Risk-free rate, Power Generation in Philippines	17.62	

The cost of debt after tax is 8.2% based on the estimated 12.0% cost of debt for private power generators at 32.0% Philippine corporate tax rate.

TRANSCO WACC

To determine Transco's WACC of 14.2 percent, we have used a 70% debt to total market value ratio. The higher leverage reflects the lower risk profile of a wires operator; the group is of the opinion that since transmission/sub-transmission and the wires business in general will remain a regulated monopoly, its cashflows should be stable, predictable and strongly correlated with power demand.

The cost of equity is 29.0%. This is the sum of the Risk-free rate of wires business in the Philippines of 15.62 percent and the product of Meralco's unlevered beta of 0.50 relevered according to a 70% debt to total market value (i.e. market value of debt plus market capitalization) ratio and a market premium (total risk premium) of 6.0%.

	%	BASIS
Risk-free rate, Rf	6.37	Yield on 10-yr US Treasury Bonds, 2/22/00
Political Risk Premium	3.25	Bid spread of RoP 2008 Bonds, 2/22/00
Philippine Risk-free rate (US$)	9.62	
Currency Risk Premium	5.00	Estimated offshore currency swap premium
Philippine Risk-free rate (Peso)	14.62	
Business Risk Premium	1.00	For Distributors, US FERC, 1997
Risk-free rate, Wires Business in Philippines	15.62	

The cost of debt after tax is 7.8% based on Meralco's cost of debt of 11.5% at 32.0% Philippine corporate tax rate.

While the various operations of NPC-whole should be valued separately with a different discount rate to be used for each function/operation, we have decided to use the Genco nominal WACC of 16% for simplicity.

(iii) Terminal value:

The terminal value of the Gencos and the Holding Company was derived using the Growth Perpetuity Model, which is basically an extension of the DCF. With this methodology, one assumes that the free cash flow in the terminal year of the forecast horizon grows consistently at a certain rate forever, which is appropriate in that each entity will operate as a going business in the long-run. To be conservative, the group has used a perpetuity growth rate of 0% which means that each entity will generate the same level of free cash flows in each year beyond the forecast horizon.

Transco's terminal value was also derived using the growth perpetuity model. A base case 3.87% perpetuity growth rate was assumed. This is because, at the very least, its volume sales should grow at 3.87% per year, which is the average projected 10-year growth rate of NPC's demand. However, in a retail competition scenario, we use the system load growth of 8.21% as the perpetuity growth rate.

While the group is biased against using multiples for reasons mentioned earlier, it has, in addition to the Growth Perpetuity model, also looked at the terminal value using a [market] Price-to-EBITDA (P/EBITDA) multiple. This multiple is a common benchmark used for power utilities, and is not as largely influenced by accounting methodologies as the Price-Earnings (P/E) ratio as it eliminates the effect of all non-cash items in the income statement. The group has used a P/EBITDA multiple of 6x, which is a benchmark for comparable companies.

One would note that the Growth Perpetuity model is akin to using multiples as it assumes that a firm's terminal value is a multiple of its free cash flow in the terminal year. To allow cross-checking, the group has therefore derived an implied P/EBITDA multiple using a certain perpetuity growth rate, and vice-versa.

(iv) Long-term Liabilities:

Debt

NPC's debt was not assigned to the Gencos. Thus, its market value is deducted from NPC's total equity value. To derive the market value of NPC's debt, we have discounted its debt service payments by 9.67 percent which represents the current cost of debt of NPC. This figure is based on the yield of the 10 year U.S. Treasury Bonds (2/18/00) of 6.37 plus 3.30%

which is the spread on NPC's 7.875 % bonds maturing 12/2006 (2/18/00). This rate is below market because it reflects the government guarantee.

IPPs

NPC's IPPs obligation was allocated to the Gencos and the Holding Company as provided by NPC. Their corresponding costs as provided by NPC were used except for the capacity fee payments. NPC provided the figures pertaining to the annual amortization of these capacity payments. Inasmuch as we are interested in finding our the annual cash outlay for these IPP obligations, we have substituted the figures derived from our independent determination of the IPP capacity fee cash outlay.

B. SCENARIOS

Two (2) major scenarios were analyzed:

1. "Normal Sales"

This is the scenario whereby Meralco, NPC's main customer, honors its 3,600-MW contract with NPC until its expiration in 2004; and,

2. "Reduced Sales"

This is the scenario whereby Meralco does not honor its 3,600-MW with NPC, but instead maximizes the volumes that it sources from its IPPs.

Within each of the above-mentioned scenarios, we have examined 4 cases:

(i) ***Base case scenario*** which reflects the current situation where the distributor purchases power from NPC and suppliers and sells power retail to end consumers;

(ii) Open Access / Tariff Reallocation

Open Access means that any generator or power supplier can use the existing transmission and distribution lines to sell directly to end-use customers. This would entail the redefinition of the distribution business to a purely distribution wires operation only.

Currently, if we unbundle the end user power tariff, we can segregate it into the following components: purchased power cost and distribution tariff. Purchased power cost is the actual cost of generation, transmission and other charges associated with the purchase of electricity from NPC and other power suppliers. The distribution tariff can be further unbundled into: distribution cost, systems loss, and service cost for supply. Distribution cost includes all costs incurred by the distributor in the wires business such as operation, maintenance and depreciation. Systems loss is the electricity lost in the distribution system which is measurable by getting the difference of the electricity that is brought into the distributor's system and electricity that goes out to the customers. Service Cost for Supply is the cost for procuring, in behalf of the customer, the bulk power supply (Purchased Power Cost). This includes the market risk and credit risk that the distributor assumes on behalf of the end customer as well as other energy related services that the distributor provides.

In an open access scenario, the market risk and credit risk that the distributor assumes on behalf of the customer is transferred to the power supplier because the power supply contract is between the customer and the power supplier with the distributor providing the wires only. As such, the corresponding fee for assuming the customers' market and credit risk should accrue to the power supplier.

Thus, if there is open access and NPC is able to secure direct power supply agreements with end customers, it is estimated that at least 30 centavos per kilowatthour should accrue to NPC without any increase in the end customer tariff. This would mean an increase in revenues to NPC. Under this scenario, we have assumed that volume will be constant.

(iii) Central Least Cost Dispatch

Under a Least Cost Dispatch scenario, generators will be dispatched according to a merit order list all generators (NPC power plants, NPC's IPPs, and Non-NPC IPPs) based on their variable cost. Based on available variable cost data for each plant and IPP in the system (including non-NPC IPPs), we have come up with a merit order list whereby we ranked all plants and IPPs in terms of their variable cost, and reallocated demand so that the most efficient plants get dispatched first, and so on subject to system stability requirements. NPC's successor Gencos would benefit from Central Least Cost Dispatch because,its plants/IPPs generally have lower variable costs than other IPPs, particularly Meralco's. Under this scenario therefore, NPC is able to maximize the capacity utilization of its plants and IPPs, while Meralco and all other non-NPC generators/IPPs serve all "system demand" in excess of what NPC is able to serve. For simplicity, we have assumed that NPC's incremental demand due to Open Access will be priced according to the competitive variable tariff, and have distributed such incremental demand evenly among the six Gencos to be privatized.

(iv) Open Access and Central Least Cost Dispatch

This scenario provides the ultimate retail competition regime where generators compete with each other for the power supply of all end user customers and their power plants are dispatched based on the variable cost merit order.

Under each of the above scenarios, the group has also looked at the cases where: Capital expenditures and working capital are considered; and, no capital expenditures are made and the effect of working capital is ignored. NPC is currently financially strapped and is trying to cut down and minimize its capital expenditures. From its point of view, it would make sense to assume very little or no capital expenditure at all especially if it believes that privatization will happen in the near term. This practically means minimizing and delaying to the extent possible its capital expenditures and relying on the winning private bidders to make the needed capital investments. Working capital, on the other hand, is normally insignificant compared to the total free cash flows of a power utility. In the cases where we took into account the effect of working capital, we simplified the analysis to include only Power Accounts Receivable, Fuel Inventory and Accounts Payable. Power Accounts Receivable was derived based on Utility Revenues, Fuel Inventory based on projected fuel consumption, and Accounts Payable based on cash operating expenses.

C. VALUATION RESULTS

If NPC is privatized as it is now, i.e. bundled generation and transmission functions under a regulated environment, NPC has a negative equity value of US$ 600 to US$ 650 million. This figure is the best value as compared with NPC's equity value under a restructured competitive environment. However, privatizing NPC as it is right now will just hand over a government monopoly to a private monopoly.

In a restructured competitive environment, following are the valuation results in million US$. These values do not include the Holding Company.

		Normal Sales	Reduced Sales
1	Base Case		
	• Without working capital/CAPEX	(11,253)	(11,467)
	• WITH working capital/CAPEX	(11,291)	(11,505)
2	Open Access		
	• Without working capital/CAPEX	(9,692)	(9,962)
	• WITH working capital/CAPEX	(9,731)	(10,001)
3	Central Least Cost Dispatch		
	• Without working capital/CAPEX	(7,036)	(6,874)
	• WITH working capital/CAPEX	(7.075)	(7,050)
4	Open Access and Least Cost Dispatch		
	• Without working capital/CAPEX	(5,044)	(5,020)
	• WITH working capital/CAPEX	(5,083)	(5,058)

It is evident from the foregoing figures that the National Power Corporation has a negative net equity value. Essentially, you can not reap what you did not sow. The government has infused minimal equity into NPC and it does not make sense to expect that it will be rewarded with positive equity values. As NPC was largely funded through debt, this reality shows in the equity valuation. NPC's IPPs and debts are negative value drivers as NPC's market is unable to cover them.

What is instructive is that the value added to NPC by the policy reforms, namely, open access and central least cost dispatch taken separately or together, increases the equity valuation of the Gencos and the Holding Company. In a competitive environment, where there is only wholesale competition, that is when only distributors can choose its power supplier, NPC is at a disadvantage as distributors will prioritize their own IPPs because of the their bilateral contracts. As such, NPC's generation assets become stranded. However, under retail competition where there is open access and central least cost dispatch, then NPC's generation assets have a fighting chance to capture the market. In this situation, the distributors' IPPs then are the ones stranded. This will only be true in the medium term which is the forecast horizon from years 2000 to 2005 when the total generation supply is greater than the total system demand.

Based on the results of the financial model used, if the policy reforms are not in place, the Gencos and the Transco will have negative equity values. But under a restructured industry where there is open access and central least cost dispatch, the total Gencos' and the Transco's equity values prior to debt assignment are positive, substantial enough to more than offset the negative equity value of the Holding Company. The Holding Company's negative equity value stems from the stranded IPP obligations that could not be absorbed by the Gencos. The positive net equity value, however, is not enough to shoulder NPC's debt.

It has been suggested that the government assume the debt obligation of NPC. There has been talk of a 150 peso billion government assumption of NPC's debt service. The figure is roughly 70 percent of NPC's debt market value of US$ 5.3 billion (211 billion pesos). The remaining stranded cost may be recouped through a levy. Assuming that there is retail competition with open access and central least cost dispatch, the levy is in the vicinity of 1.20 pesos per kilowatthour based on system sales.

Details on the results of the valuation are found in the Appendix – Part D.

V. CONCLUSION/RECOMMENDATION

A. CONCLUSION

NPC may not remain financially viable in the short and long-term. To begin with, its gross liabilities[1] total about $ 21.3 billion, broken down mainly into debt of about $5.3 billion and IPP obligations of about $16.4 billion in present value terms. Such gross liabilities are a contingent liability burden on the Department of Finance, regardless of whether it has either issued a guarantee or performance undertaking or not. NPC's creditors as well as Congress is pressing for a liability management program to prevent default on any of such obligations.

Based on expected price of electricity of 4.5 US cents per kilowatt-hour upon deregulation, the shareholders equity is negative, estimated at around US$ 5 billion. This is comprised of debt worth around US$2 billion in excess of the market value of the corresponding assets, and IPP obligations of about US$3 billion, which are largely a function of NPC's tariffs and market share. Such net liabilities are a direct cost to the Department of Finance if they cannot be passed on to consumers.

It is expected that NPC's financial condition will further deteriorate in the future, as the company projects to incur huge cash deficits as a result of:

1. Declining sales and market share

This is due to the current economic crisis that has dampened demand growth, coupled with oversupply in the industry. This has been compounded by certain distributors, especially Meralco, which have contracted directly with IPPs which will cannibalize NPC's market, and the Government's failure to implement central least-cost (merit-order based) dispatch which ranks all plants and IPPs in the system according to their variable costs, and gives priority to the cheapest plants/IPPs thereby maximizing their capacities. Such distributors have no incentive to purchase power directly from NPC even if the latter's price is more competitive than its IPPs because of:

- High levels of minimum energy off-takes (take-or-pay agreements) contracted with most of their IPPs;
- A tariff structure that allows the distributor to fully pass on to the consumer the cost of its purchased power;
- Cross-ownership between the distributor and IPP among certain shareholders

[1] including contingent liabilities

2. Increasing IPP burden

IPPs contracted by NPC during the power crisis in the early 1990s have already come on line. Such IPPs have been able to negotiate favorable capacity fees or take-or-pay arrangements (in the form of minimum energy off-takes) that will enable them to get paid a fixed lump sum regardless of their dispatch levels. Some other IPPs will come on line in the near term as a result of policy decisions made by the Government (e.g. Ilijan), while others were contracted prior to the Asian economic crisis when demand forecasts were still optimistic.

3. Debt service "humps in 2000 - 2002

This is a result of certain bonds due those years namely the US$200 million Eurobond maturing in 2000 and the US$150 miilion issue under the EMTN program which is due in 2002.

- Continued high levels of capital investment. NPC will need an average of US$0.5 billion a year in the next 5 years to preserve the security and reliability of the system. While investments in generation may have to be scaled down or postponed in the near term due to the oversupply in the industry, low market growth, (and distortions due to the failure to implement central least cost dispatch among the non-NPC IPPs), long-term growth prospects are still promising with demand expected to pick-up and exceed supply in 2005; the projected average long-term growth in demand is about 8 percent although it is only 4% in NPC market. This is because NPC is currently unable to capture new growth outside its market with the absence of open access and central least cost dispatch. In addition, NPC will have to continually upgrade and maintain its transmission system to ensure system efficiency.

- Uncertain prospects for tariff increase. NPC has relied on increases to its basic rate to remain viable. As a guide, basic rate increases are granted to enable NPC to achieve an 8% Return on Rate Base (RORB), a key requirement of some of its lenders. The Government, on the other hand, has set a cap of 12%. NPC is technically in default because its current RORB is only 4.92%. The recent 7.9 centavo per kilowatt-hour increase granted in June 1999 is not sufficient for NPC to reach an 8% RORB. NPC is currently still seeking approval to implement the 7.9 centavo increase retroactive to January 1999. The current administration has been averse to increasing tariffs given its pro-poor platform. It should become more averse in the near term given the forthcoming senatorial elections in 2001.

Privatization appears to be the only solution to NPC's poor financial condition. However, the passage of the Omnibus Privatization Bill by Congress has been delayed, owing mainly to the following obstacles:

- Perceived opposition to the reforms by vested interests

- Concerns about the net liability burden on government and consumers. The government's net liability burden, also known as "stranded assets/liabilities", has always been a thorny issue. Absorbing such "stranded liabilities", estimated at US$5 billion, would drain government coffers; raising debt finance would bloat the country/sovereign debt. Passing on to consumers these "stranded liabilities" would defeat the rational for privatization and deregulation which is to eliminate all forms of subsidies and distortions to the system, and lower rates.

B. STRATEGY

There are however a number of measures which will relieve the DOF of its NPC liabilities:

- A comprehensive liability management program to reduce the scale of the problem
- A well-managed asset transfer program linked to the financial requirements
- Omnibus Bill reforms and a levy to recover the balance would still be required and can be accommodated at any stage in the process, and will be facilitated by the liability management program.

1. Comprehensive Liabilities Management Program

This will involve restructuring both NPC and the entire power industry. Restructuring NPC will basically involve the restructuring of its IPP liabilities and debt liabilities.

(I) Restructuring the IPP liabilities

This will mainly involve:

- A selective buy-out of NPC's off-take contracts, funded by debt financing;
- Mechanisms to reduce NPC's exposure in relation to all IPPs including the transfer of market risks to private sector investors;

(II) Restructuring debt liabilities

This will involve the following:

- Selective refinancing of NPC debt to ease the short-term debt service burden
- "Pre-sale" of a quasi-equity interest in pre-levered NPC as through the sale of O&M contracts which convert automatically into an equity interest once asset sales are authorized ("Operate-Maintain-Convert")
- Application of proceeds from asset transfers to repay existing debt

(iii) ***Industry restructuring***

This should be done in parallel and will involve facilitating efforts of NPC and the Government to effect reforms, including:

- Mechanisms to improve NPC's competitive position and commercial performance;
- Mechanisms to recover NPC's stranded costs, including a levy;

A comprehensive liabilities management plan will have four related elements:

(a) Restructuring existing debt, and ensuring sufficient cash to meet debt service obligations;
(b) Measures to reduce or set-off liabilities under IPP off-take contracts and remove contingent liabilities;
(c) Realizing the maximum value for NPC assets by reducing costs and undertaking well-managed sale of interests (liability reduction and transferring responsibility for funding future capital expenditure);
(d) A levy remains unavoidable, given the scale of NPC's problems, but the amount required will be minimized by the preceding elements.

2. Asset Transfer Program

The steps that will have to be undertaken are as follows:

(i) ***Raise new finance through debt capital markets and other sources for an amount, say up to US$3 billion.***

(ii) *Use these funds for one or more of the following purposes*:

- **IPP buy-out tender.**

Offer to buy-out selected IPPs to eliminate contingent liabilities and reduce direct liabilities. There will be net savings from this transaction. The cash outlay to buy out the IPPs will be compensated by the market value of the IPPs bought. Since the bought IPP is now NPC owned, the capacity payments can now be spread over a longer time period (loan term), its operation and maintenance as well as variable costs can be managed and the earnings will accrue to NPC. These offsets the cash outlay.

- **The balance of the new finance can be applied to the NPC or DOF debt restructuring.**

1. Re-finance selected NPC debts.
2. Re-finance selected DOF debts, e.g. Brady bonds, to release collateral.

There will be no increase in the amount of DOF/NPC liabilities from the above transactions. While the DOF/NPC liability increases by the amount of new finance, there is an immediate offset through a reduction in direct liabilities from the IPP bought and the balance of new finance will be offset against the liabilities that will be restructured. In addition, contingent liability is reduced.

- **Attach debt and IPP liabilities to NPC assets with off-take arrangements under competitive commercial terms.**

- **Perform Operate-Maintain-Convert (OMC) tender of NPC assets.**

Under the OMC scheme, NPC retains ownership of the assets and only the operation and maintenance of the Gencos and/or Transco are bidded out. The winning private sector proponent will lease, operate and maintain NPC's Gencos and/or transmission network. A security deposit will be required to be put up by the proponent front end which will be repaid by NPC over a certain number of years after a grace period. The security deposit may be calculated based on the present value of expected profit share of NPC in the earnings of the company. Additional cash inflows to NPC will be in the form of lease payments. This could be equivalent to the debt service levels of the proposed allocated debt to the successor company. The operation and maintenance fees, on the other hand, will be negotiated but may have a ceiling estimated at NPC's avoided cost for operations and maintenance. Full management of the company will be ceded to the proponent. Upon the passage of the Omnibus Bill, the security deposit or the balance thereof can be converted to equity.

This will benefit NPC as it is able to generate proceeds in the form of collateral] payments ("security deposits") and allocate its debt. Further, the liability for new capex obligations of about P100 billion will be allocated to the private sector.

- **Proceeds from the OMC can be used to offset new financing requirements to contribute to the cost of the IPP buy-out tender.**

- **The balance can be used to service NPC's existing debt.**

3. Omnibus Bill Passage

Upon the passage of the Omnibus Bill, implement a levy to cover the balance of NPC's debt and on-going IPP liabilities, plus any increase in DOF liabilities.

B. EXPECTED BENEFITS

The expected benefits, which will be subject to market conditions and investor response, can be summarized as follows:

Advantages to the DOF:

- Contingent liabilities will be reduced
- Other contingent liabilities will be set off on private sector investors (back-to-back liability)
- There will be a net reduction in direct liabilities (after offsetting reduction in assets and new financing)

Advantages to NPC:

- Capex obligations will be reduced (thus reducing public sector deficit) by some P100 billion.
- Operational efficiency is estimated to increase by some 20-30%. This will be reflected in [process] and lower tariffs.
- IPP liabilities will be reduced. This will lead to a reduction in the deficit.
- There will be a gross reduction in debt. This takes into account OMC proceeds and debt allocation.

Advantage to consumers:

- Tariffs will be lower than what they would be without this liability management package due to:
- Reduced payments to IPPs
- Commercial trading arrangements which will reduce the total cost of generation

APPENDICES

Appendix A	Scope of Services
Appendix B	External Debt of NPC
Appendix C	IPP's Financial Cash Flow Model
Appendix D	Results of Financial Evaluation of Different Scenarios

Appendix A Scope of Services

APPENDIX A - PART A

SCOPE of SERVICES

Phase I. Recommendations on the management of power-related government contingent liabilities

1. Identify and review the following (with December 31, 1999 as the cut-off for contract effectivity) for which the government has undertaken to provide guarantees:

   - the contracts of NPC obligations (*e.g* loans, IPP contracts);
   - the contracts of obligations of related GOCCs (*e.g.* PNOC-EDC, NIA) which have an impact on NPC's financial performance.

2. Determine and classify the type of guarantees provided by the government in No. 1 above, whether it is:

   - a direct guarantee on the loans of the proponent,
   - a guarantee/undertaking of the performance of the GOCC of its obligation under the contract,
   - a provision of direct subsidy,;
   - an enhancement to improve the proponent's position,
   - or others as may be determined.

3. Ascertain and quantify the risks mitigated, its levels and distribution over time in order to value the government's contingent liabilities.

4. Assess NPC's ability to meet its financial obligations on No.1, the status of implementation of these contracts, and other related developments in order to estimate the probability that the guarantee will be called.

5. Prepare recommendations on the management of the government's contingent liabilities related to power.

Phase II. Recommendations on the management of NPC liabilities.

1. Assess NPC market share (*i.e.* supply and demand) with or without the restructuring of the electricity industry.

2. Determine the impact of proposed fiscal measures and laws on NPC's liabilities.

3. Assess NPC's ability to meet its financial obligations assuming status quo.

   - Develop discounted cash flow model

   - Determine the nature and amount of government benefit or cost (*i.e.* additional borrowings) and its distribution over time.

4. Assess the government's net exposure upon industry restructuring and NPC privatization.

   - Review/update NPC privatization discounted cash flow model

   - Determine the stranded cost that government has to address.

5. Recommend measures to manage NPC liabilities without industry restructuring and NPC privatization

   - Develop discounted cash flow model

6. Prepare necessary enabling executive issuances

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Appendix B External Debt of NPC

EXTERNAL DEBT OF THE NATIONAL POWER CORPORATION													
As of December 1999													
Creditor	Loan Date	Currency	Loan Amount In Orig. Currency	O/S Balance In Orig. Curreny	O/S Balance In US Dollars	Loan Type	Interest Type	Interest rate %	Spread	Commit-ment Fee rate	First Repayment	Last Paydate
A. REGULAR LOANS												
FLOATING												
1992 BOND CONV. IRB(A)	2/20/92	USD	4,063,000.00	3,977,295.29	3,977,295.29	BOND	SLIBOR	6.00	0.8125		12/1/99	12/1/07
1992 BOND - NMB(B) MITSUI $75	2/20/92	USD	3,658,000.00	2,926,400.00	2,926,400.00	BOND	SLIBOR	6.00	0.8125		12/1/97	12/1/09
1992 BOND CONV.-NMB (B)	2/20/92	USD	21,148,000.00	17,024,115.23	17,024,115.23	BOND	SLIBOR	6.00	0.8125		12/1/97	12/1/09
BOND-NG			28,869,000.00	23,927,810.52	23,927,810.52			6.00				
ADB	11/4/88	USD	120,000,000.00	80,787,851.25	80,787,851.25	ODA	CQB	6.38	0.40	0.75	2/15/93	8/15/08
ADB	12/18/89	USD	160,000,000.00	125,935,376.24	125,935,376.24	ODA	CQB	6.38	0.40	0.75	5/15/94	11/15/09
ADB	4/19/91	USD	200,000,000.00	181,012,048.43	181,012,048.43	ODA	CQB	6.38	0.40	0.75	3/15/96	9/15/15
ADB	12/23/86	USD	92,000,000.00	57,627,800.00	57,627,800.00	ODA	CQB	6.38	0.40	0.75	4/15/91	10/15/06
ADB	12/20/93	USD	164,000,000.00	100,583,862.83	100,583,862.83	ODA	CQB	6.38	0.400	0.75	2/15/97	8/15/13
ADB	11/27/95	USD	244,000,000.00	142,129,611.43	142,129,611.43	ODA	CQB	6.38	0.400	0.75	2/15/00	8/15/19
ADB	11/18/96	USD	5,347,000.00	3,799,172.77	3,799,172.77	ODA	CQB	6.38	0.400	0.75	2/1/00	8/1/11
ADB	1/21/98	USD	191,400,000.00	732,536.98	732,536.98	ODA	CQB	6.38	0.400	0.75	5/1/02	11/1/17
ADB	12/21/98	USD	150,000,000.00	50,000,000.00	50,000,000.00	ODA	CQB	6.38	0.400		2/15/02	8/15/13
ODA USD			1,326,747,000.00	742,608,259.93	742,608,259.93			6.38				
IBRD	8/5/83	USD	50,000,000.00	11,666,666.59	11,666,666.59	ODA	CQB	5.15	0.50	0.25	11/15/88	5/15/03
IBRD	1/9/84	USD	50,000,000.00	4,666,666.59	4,666,666.59	ODA	CQB	5.15	0.50	0.25	11/15/88	5/15/03
IBRD	9/1/88	USD	59,000,000.00	37,642,968.06	37,642,968.06	ODA	CQB	5.15	0.50	0.25	2/1/94	8/1/08
IBRD	3/16/90	USD	200,000,000.00	161,640,000.00	161,640,000.00	ODA	CQB	5.15	0.50	0.25	10/15/95	4/15/10
IBRD	8/13/93	USD	110,000,000.00	48,575,451.80	48,575,451.80	ODA	CQB	5.15	0.50	0.25	3/15/99	9/15/13
IBRD	3/11/94	USD	127,353,957.32	124,971,485.33	124,971,485.33	ODA	CQB 1/	5.15	0.50	0.25	8/1/99	2/1/14
IBRD	3/11/94	USD	19,646,042.68	6,490,146.66	6,490,146.66	ODA	CQB 1/	5.15	0.50	0.25	8/15/99	2/15/14
IBRD	9/12/94	USD	88,846,470.71	87,163,891.54	87,163,891.54	ODA	CQB 2/	5.15	0.50	0.25	10/15/99	4/15/14
IBRD	9/12/94	USD	24,153,529.29	9,931,961.02	9,931,961.02	ODA	CQB 2/	5.15	0.50	0.25	10/15/99	4/15/14
IBRD	5/15/96	USD	33,902,426.77	33,902,426.77	33,902,426.77	ODA	CQB 3/	5.15	0.50	0.25	8/15/01	2/15/16
IBRD	5/15/96	USD	150,000,000.00	76,705,808.46	76,705,808.46	ODA	SLIBOR	5.69	0.50	0.25	8/15/01	2/15/16
ODA USD			912,902,426.77	603,357,472.82	603,357,472.82			5.22				
NORDIC INVESTMENT BANK	3/16/98	USD	25,000,000.00	25,000,000.00	25,000,000.00	ODA	SLIBOR	5.69	0.5000		10/25/00	4/25/10
NORDIC DEV. FUND	2/20/95	USD	5,068,467.93	5,068,467.93	5,068,467.93	ODA	SLIBOR	5.99	0.800		6/30/00	6/30/14
NORDIC INV.	2/20/95	USD	10,138,728.38	10,138,728.38	10,138,728.38	ODA	SLIBOR	5.99	0.800		6/30/04	12/30/34
ODA USD			40,207,196.31	40,207,196.31	40,207,196.31	-		5.80	2.10	-		
TOTAL ODA USD			2,279,856,623.08	1,386,172,929.06	1,386,172,929.06	-		5.86	2.10	-		

EXTERNAL DEBT OF THE NATIONAL POWER CORPORATION													
As of December 1999													
Creditor	Loan Date	Currency	Loan Amount In Orig. Currency	O/S Balance In Orig. Curreny	O/S Balance In US Dollars	Loan Type	Interest Type	Interest rate %	Spread	Commit-ment Fee rate	First Repayment	Last Paydate
MORGAN GUARANTY	4/24/95	USD	100,000,000.00	100,000,000.00	100,000,000.00	CL	SLIBOR	6.81	1.625		5/24/00	5/24/00
INT'L. NETHERLAND BANK	11/7/97	USD	160,000,000.00	160,000,000.00	160,000,000.00	CL	SLIBOR	6.44	1.25		11/12/00	11/12/01
CL-USD			260,000,000.00	260,000,000.00	260,000,000.00			6.58				
BOTM Syndicated	6/1/99	JPY	27,200,000,000.00	27,200,000,000.00	265,689,600.00	CL	YLIBOR	2.41	1.60	0.40	6/1/09	6/1/09
ECG-JPY			27,200,000,000.00	27,200,000,000.00	265,689,600.00			2.41				
BAYERISCHE VEREINSBANK	11/25/92	USD	11,576,887.79	5,209,599.50	5,209,599.50	ECG	SLIBOR	6.19	1.000		12/30/94	6/30/04
JEXIM UNTIED LOAN-San Roque	9/30/99	USD	200,000,000.00	130,000,000.00	130,000,000.00		SLIBOR	6.09	0.9			
ECG-USD			211,576,887.79	135,209,599.50	135,209,599.50			6.09				
BAYERISCHE VEREINSBANK	11/25/92	CHF	34,308,469.00	15,438,811.05	9,686,788.66	ECG	CHFLIBOR	2.14	0.875		12/30/94	6/30/04
ECG CHF			34,308,469.00	15,438,811.05	9,686,788.66			2.14				
KFW	3/24/92	DEM	26,000,000.00	12,208,454.00	6,285,778.92	ECD	DM Rate	7.64		0.25	9/15/94	12/30/04
KFW	5/8/93	DEM	39,600,000.00	27,714,700.00	14,269,495.30	ECD	DM Rate	7.63		0.25	9/30/97	3/30/07
KFW-SUPPLEMENTAL	6/11/96	DEM	15,000,000.00	8,817,900.35	4,540,081.17		DM Rate	7.05		0.25	9/30/97	3/30/07
EC DM			80,600,000.00	48,741,054.35	25,095,355.39			7.53				
CITIBANK	9/16/92	DEM	43,934,946.00	19,770,725.70	10,179,373.31	ECG	DMLIBOR	5.75	1.500		10/15/94	4/15/04
ECG DM			43,934,946.00	19,770,725.70	10,179,373.31			5.75				
NICHIMEN CORP.	3/30/90	DEM	6,928,750.00	629,867.45	324,300.48	SC	DMLIBOR	5.75	0.875		6/29/95	6/29/00
CL-SC DM			6,928,750.00	629,867.45	324,300.48			5.75				
NICHIMEN CORPORATION	1/13/94	JPY	297,836,229.00	148,918,110.00	1,454,632.10	SC	LTPR	6.15	1.250		6/1/95	12/1/04
NICHIMEN CORPORATION	2/28/91	JPY	567,241,238.00	147,335,385.00	1,439,172.04	SC	LTPR	6.98	0.875		3/6/96	3/6/01
ABN AMRO BANK	11/11/99	JPY	8,469,061,963.00	8,469,061,963.00	82,725,797.25	CL	LIBOR	1.859	1.60		05/18/00	11/18/03
ABN AMRO BANK	11/11/99	JPY	13,536,535,533.00	13,536,535,533.00	132,224,879.09	CL	LIBOR	1.859	1.60		05/25/00	05/25/04
CL JPY			22,870,674,963.00	22,301,850,991.00	217,844,480.48			1.92				
EXIMBANK OF JAPAN	12/22/94	JPY	18,600,000,000.00	16,156,418,429.00	157,815,895.21	ECD	LTPR/FILPR ***	3.70	0.2	0.25	9/15/98	9/15/15
EXIMBANK OF JAPAN	12/22/94	JPY	6,100,000,000.00	5,534,694,130.00	54,062,892.26	ECD	LTPR/FILPR ***	3.50	0.2	0.25	10/15/99	4/15/14
EXIMBANK OF JAPAN	6/25/92	JPY	20,550,000,000.00	6,349,934,481.00	62,026,160.01	ECD	LTPR	5.61		0.25	10/15/95	4/15/10
EXIMBANK OF JAPAN	3/27/96	JPY	26,840,000,000.00	17,375,215,326.00	169,721,103.30	ECD	LTPR/FILPR ***	3.20	0.200	0.25	2/15/00	8/15/19
JEXIM UNTIED LOAN	9/30/99	JPY	#REF!	13,533,000,000.00	132,190,344.00		LTPR	2.00	-0.200			
EC JPY			#REF!	58,949,262,366.00	575,816,394.79			3.35				
IBRD	5/15/96	JPY	9,090,399,246.00	502,300,910.00	4,906,475.29	ODA	YLIBOR	1.31	0.50	0.25	8/15/01	2/15/16
ODA JPY			9,090,399,246.00	502,300,910.00	4,906,475.29			1.31	0.50	0.25		
STANDARD CHARTERED BANK	10/12/94	USD	13,626,174.00	1,037,328.48	1,037,328.48	ECG	SLIBOR	5.69	0.500		6/15/96	12/15/03
BANQUE INDOSUEZ $25.497	12/22/92	USD	25,497,447.00	12,748,723.40	12,748,723.40	ECG	FLOAT	5.69		0.5	2/5/95	8/5/04
BAYERISCHE VEREINSBANK	12/16/92	USD	18,770,336.00	7,446,189.31	7,446,189.31	ECG	SLIBOR	6.19	1.000		9/15/94	3/15/04
CITICORP INV. BANK	12/17/92	USD	17,444,747.00	7,394,218.47	7,394,218.47	ECG	SLIBOR	5.46	0.275		9/15/94	3/15/04
CITICORP INV. BANK	12/20/91	USD	19,517,349.00	6,831,072.15	6,831,072.15	ECG	SLIBOR	5.54	0.350		12/15/93	6/15/03
CITICORP INV. BANK	8/18/92	USD	19,517,349.00	7,806,939.60	7,806,939.60	ECG	SLIBOR	5.54	0.350		6/15/94	12/15/03
CITICORP INV. BANK	7/31/92	USD	4,516,620.00	1,624,738.51	1,624,738.51	ECG	SLIBOR	5.54	0.350		12/15/93	6/15/03

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BEST AVAILABLE COPY

EXTERNAL DEBT OF THE NATIONAL POWER CORPORATION													
As of December 1999													
Creditor	Loan Date	Currency	Loan Amount In Orig. Currency	O/S Balance In Orig. Curreny	O/S Balance In US Dollars	Loan Type	Interest Type	Interest rate %	Spread	Commit-ment Fee rate	First Repayment	Last Paydate
ECG USD			118,890,022.00	44,889,209.92	44,889,209.92			5.68				
TOTAL - FLOATING					2,959,742,317.41			4.84	2.10			
FIXED												
1992 IRB (A) -$75 m MITSUI	2/20/92	USD	5,163,000.00	5,065,051.76	5,065,051.76	BOND	FIXED/FLOAT	6.81	0.8125		12/1/99	12/1/07
1992 BOND - PCIRB(B)MITSUI$75	2/20/92	USD	4,880,000.00	4,880,000.00	4,880,000.00	BOND	FIXED	6.50			12/1/17	12/1/17
1992 BOND CONV.-IRB (B)	2/20/92	USD	5,704,000.00	5,584,581.67	5,584,581.67	BOND	FIXED*	6.00			12/1/99	6/1/08
1992 BOND CONV.-PCIRB (A)	2/20/92	USD	1,658,000.00	1,658,000.00	1,658,000.00	BOND	FIXED	6.50			6/1/18	6/1/18
1992 BOND CONV.-PCIRB (B)	2/20/92	USD	61,443,000.00	61,443,000.00	61,443,000.00	BOND	FIXED	6.50			12/1/17	12/1/17
BOND-NG			78,848,000.00	78,630,633.43	78,630,633.43			6.48				
IBRD/ECO EUROBOND	7/11/94	USD	100,000,000.00	100,000,000.00	100,000,000.00	BOND	FIXED	9.75			7/1/09	7/1/09
MORGAN GUARANTY	6/28/95	USD	150,000,000.00	150,000,000.00	150,000,000.00	BOND	FIXED	9.00			7/5/02	7/5/02
BANKERS TRUST-$200M BOND	11/18/93	USD	200,000,000.00	200,000,000.00	200,000,000.00	BOND	FIXED	7.63			11/15/00	11/15/00
SALOMON BROTHERS/MORGAN STAN	5/5/98	USD	300,000,000.00	300,000,000.00	300,000,000.00	BOND	FIXED	9.63			11/15/28	11/15/28
SALOMON BROTHERS	12/31/96	USD	200,000,000.00	200,000,000.00	200,000,000.00	BOND	FIXED	7.88			12/15/06	12/15/06
SALOMON BROTHERS	12/31/96	USD	160,000,000.00	160,000,000.00	160,000,000.00	BOND	FIXED	8.40			12/15/16	12/15/16
BOND USD -NPC			1,110,000,000.00	1,110,000,000.00	1,110,000,000.00			8.70				
NOMURA YEN BOND	12/11/95	JPY	12,000,000,000.00	12,000,000,000.00	117,216,000.00	BOND	FIXED	4.65			12/11/15	12/11/15
BOTM JEXIM GTD	6/1/99	JPY	20,800,000,000.00	20,800,000,000.00	203,174,400.00	CL	FIXED	3.78	1.6000		6/1/09	6/1/09
EXIMBANK OF JAPAN	12/29/88	JPY	12,173,103,158.00	340,139,301.00	3,322,383.01	ECD	FIXED	4.90		0.5	2/3/90	4/4/00
EXIMBANK OF JAPAN	12/29/88	JPY	1,291,307,592.00	344,335,219.00	3,363,466.42	ECD	FIXED	5.30		0.5	6/30/94	6/30/01
EXIMBANK OF JAPAN	4/23/91	JPY	2,250,578,550.00	675,172,550.00	6,595,085.47	ECD	FIXED	6.50		0.5	1/25/93	7/25/02
EXIMBANK OF JAPAN	12/27/91	JPY	13,214,972,909.00	5,283,800,923.00	51,612,167.42	ECD	FIXED	6.50		0.5	11/15/93	5/15/03
EXIMBANK OF JAPAN	12/22/92	JPY	27,885,851,852.00	11,923,996,947.00	116,473,602.18	ECD	FIXED	5.80		0.5	1/25/95	7/25/04
ECD JPY			56,815,814,061.00	18,567,434,940.00	181,366,704.49			6.00				
KFW	5/8/93	DEM	30,400,000.00	30,400,000.00	15,652,078.40	ECD	FIXED	9.00		0.25	12/30/06	6/30/23
KFW	4/24/88	DEM	46,000,000.00	42,550,000.00	21,907,761.05	ECD	FIXED	6.50		0.25	12/31/98	6/30/18
KFW	11/16/89	DEM	18,000,000.00	17,958,253.35	9,246,183.86	ECD	FIXED	3.50		0.25	12/31/99	12/31/19
KFW	7/12/90	DEM	17,647,572.50	980,432.50	504,796.26	ECD	FIXED	8.30		0.375	12/31/91	6/30/00
KFW	3/24/92	DEM	60,000,000.00	60,000,000.00	30,892,260.00	ECD	FIXED	9.00		0.25	6/30/02	6/30/32
KFW	5/8/93	DEM	60,000,000.00	58,727,895.98	30,237,290.53	ECD	FIXED	9.00		0.25	12/30/06	6/30/33
KFW	12/14/95	DEM	50,000,000.00	44,408,219.52	22,864,504.39	ECD	FIXED	7.50		0.25	6/30/06	12/30/35
KFW	12/14/95	DEM	98,296.00	89,154.78	45,903.21	ECD	FIXED	7.50		0.25	6/30/06	12/30/25
KFW	12/14/95	DEM	30,700,000.00	21,671,349.19	11,157,949.23	ECD	FIXED	7.00		0.25	6/30/08	12/30/35
KFW	10/31/96	DEM	9,300,000.00	-	-	ECD	FIXED	6.50		0.25	6/30/07	12/30/36
KFW	4/2/96	DEM	12,800,000.00	12,795,192.97	6,587,873.80	ECD	FIXED	7.00		0.25	6/30/06	6/30/36
ECD-DEM			334,945,858.50	289,580,498.29	149,096,600.74			7.82				

EXTERNAL DEBT OF THE NATIONAL POWER CORPORATION

As of December 1999

Creditor	Loan Date	Currency	Loan Amount In Orig. Currency	O/S Balance In Orig. Curreny	O/S Balance In US Dollars	Loan Type	Interest Type	Interest rate %	Spread	Commit-ment Fee rate	First Repayment	Last Paydate
OECF	4/28/77	JPY	720,000,000.00	97,295,000.00	950,377.56	ODA	FIXED	3.25			4/20/84	4/20/02
OECF	1/14/78	JPY	1,280,000,000.00	214,968,410.00	2,099,811.43	ODA	FIXED	3.25			1/20/85	1/20/03
OECF	2/2/79	JPY	7,000,000,000.00	3,243,870,000.00	31,686,122.16	ODA	FIXED	3.25			2/20/89	2/20/09
OECF	6/20/81	JPY	18,800,000,000.00	4,605,226,245.27	44,983,849.96	ODA	FIXED	3.00			6/20/90	6/20/10
OECF	6/16/81	JPY	4,600,000,000.00	2,528,459,000.00	24,697,987.51	ODA	FIXED	3.00			6/20/91	6/20/11
OECF	5/31/82	JPY	32,420,000,000.00	15,542,625,000.00	151,820,361.00	ODA	FIXED	3.00			5/20/92	5/20/12
OECF	9/9/83	JPY	9,900,000,000.00	4,445,952,000.00	43,428,059.14	ODA	FIXED	3.00			9/20/93	9/20/13
OECF	9/9/83	JPY	9,600,000,000.00	6,349,756,000.00	62,024,416.61	ODA	FIXED	4.00			9/20/93	9/20/13
OECF	11/18/86	JPY	5,361,445,783.13	5,361,445,783.13	52,370,602.41	ODA	FIXED	3.50			5/20/89	5/20/04
OECF	9/25/87	JPY	40,400,000,000.00	33,734,484,000.00	329,518,439.71	ODA	FIXED	4.00			9/20/97	9/20/17
OECF	5/26/89	JPY	2,299,000,000.00	1,699,106,892.00	16,596,876.12	ODA	FIXED	5.70			11/20/99	5/20/19
OECF	3/23/93	JPY	3,653,000,000.00	3,078,394,504.00	30,069,757.52	ODA	FIXED	5.50			1/20/03	1/20/23
OECF	3/31/93	JPY	6,112,000,000.00	2,640,349,052.00	25,790,929.54	ODA	FIXED	5.50			1/20/03	1/20/23
OECF	12/7/94	JPY	7,056,000,000.00	139,847,138.00	1,366,026.84	ODA	FIXED	4.90			12/20/04	12/20/24
OECF	12/7/94	JPY	6,630,000,000.00	120,055,505.00	1,172,702.17	ODA	FIXED	4.90			12/20/04	12/20/24
OECF	12/20/94	JPY	5,513,000,000.00	5,164,018,999.00	50,442,137.58	ODA	FIXED	4.90			12/20/04	12/20/24
OECF	12/20/94	JPY	2,896,000,000.00	1,218,985,999.00	11,907,055.24	ODA	FIXED	4.90			12/20/04	12/20/24
OECF	12/20/94	JPY	457,000,000.00	213,908,037.00	2,089,453.71	ODA	FIXED	4.90			12/20/04	12/20/24
OECF	8/30/95	JPY	2,224,000,000.00	48,756,573.00	476,254.21	ODA	FIXED	2.70			8/20/05	8/20/25
OECF-A	3/18/97	JPY	7,747,000,000.00	234,135,508.00	2,287,035.64	ODA	FIXED	2.70			3/20/07	3/20/27
OECF-B	3/18/97	JPY	339,000,000.00	192,516,275.00	1,880,498.97	ODA	FIXED	2.70			3/20/07	3/20/27
OECF	3/18/97	JPY	14,972,000,000.00	489,599,088.00	4,782,403.89	ODA	FIXED	2.70			3/20/07	3/20/27
ODA JPY			189,979,445,783.13	91,363,755,008.40	892,441,158.92			3.82				
ADB	12/16/77	USD	29,000,000.00	5,906,317.14	5,906,317.14	ODA	FIXED	8.30		0.75	4/15/83	10/15/02
ADB	11/28/79	USD	60,700,000.00	21,826,701.42	21,826,701.42	ODA	FIXED	7.60		0.75	5/15/85	11/15/04
ADB	1/14/81	USD	60,500,000.00	6,667,515.33	6,667,515.33	ODA	FIXED	9.00		0.75	7/15/84	1/15/01
ADB	1/10/83	USD	32,750,000.00	2,776,650.93	2,776,650.93	ODA	FIXED	11.00		0.75	2/15/86	8/15/02
ADB	12/23/83	USD	43,800,000.00	9,499,065.32	9,499,065.32	ODA	FIXED	10.50		0.75	3/15/88	9/15/03
ADB	12/28/84	USD	35,000,000.00	11,751,645.72	11,751,645.72	ODA	FIXED	10.25		0.75	4/15/88	10/15/04
ADB	4/24/86	USD	28,460,408.00	28,460,408.00	28,460,408.00	ODA	FIXED	9.65		0.75	11/15/91	5/15/26
ADB	1/20/77	USD	52,000,000.00	12,334,200.00	12,334,200.00	ODA	FIXED	8.90		0.45	7/15/82	1/16/02
ODA USD			340,210,408.00	99,222,503.86	99,222,503.86			9.17				
IBRD	8/25/82	USD	50,000,000.00	1,273,066.76	1,273,066.76	ODA	FIXED	9.25			4/15/86	10/15/00
ODA USD			50,000,000.00	1,273,066.76	1,273,066.76			9.25				
BANQUE PARIBAS	1/18/90	FRF	16,572,304.15	2,385,776.49	366,254.86	ECG	FIXED	8.30			4/27/91	4/27/01
BANQUE PARIBAS	11/5/90	FRF	5,927,646.01	1,086,960.07	166,865.76	ECG	FIXED	8.30			9/30/91	3/29/01
BANQUE PARIBAS	7/4/94	FRF	54,754,708.80	7,844,525.53	1,204,260.18	ECG	FIXED	6.850			06/30/95	12/31/99
BANQUE PARIBAS	12/9/88	FRF	53,950,000.00	2,697,000.00	414,032.65	ECG	FIXED	8.00			7/10/90	1/10/00
CREDIT NATIONAL	7/1/91	FRF	30,000,000.00	28,650,000.00	4,398,233.40	ECG	FIXED	5.45			6/30/99&6/30/00	12/31/19
CREDIT NATIONAL	2/9/90	FRF	120,000,000.00	102,000,000.00	15,658,632.00	ECG	FIXED	5.00			6/30/97	12/31/16

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EXTERNAL DEBT OF THE NATIONAL POWER CORPORATION												
As of December 1999												
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CREDIT NATIONAL	1/18/90	FRF	22,500,000.00	22,474,985.44	3,450,269 86	ECG	FIXED	3.00			3/31/01&12/31/00	9/30/20
CREDIT NATIONAL	12/23/88	FRF	50,000,000.00	48,852,909.07	7,499,703.19	ECG	FIXED	3.00			9/30/99	3/31/20
CREDIT NATIONAL	9/14/94	FRF	9,904,291.00	9,796,022.27	1,503,846.15	ECG	FIXED	3.10			6/30/01	12/31/16
CREDIT NATIONAL	9/14/94	FRF	10,091,709.00	9,988,241.92	1,533,354.95	ECG	FIXED	3.10			6/30/01	12/31/16
BANQUE PARIBAS	8/23/95	FRF	4,999,000 00	3,214,943.10	493,545.20	ECG	FIXED	6 85			9/23/96	3/21/06
ECG FF			378,699,658.96	238,991,363.89	36,688,998.22			4.47				
BANK OF AMERICA	5/15/89	GBP	24,375,000.00	2,340,052.49	3,779,184.77	ECG	FIXED	8 00			1/10/91	7/10/00
BANK OF AMERICA	10/17/90	GBP	12,895,172.00	2,877,218.55	4,646,707.96	ECG	FIXED	8.30			8/15/92	2/15/02
ECG GBP			37,270,172.00	5,217,271.04	8,425,892.73			8.17				
NICHIMEN CORPORATION	1/13/94	JPY	2,039,181,309 00	1,121,549,715.00	10,955,297.62	SC	FIXED	4.90			8/28/95	2/28/05
NICHIMEN CORPORATION	2/28/91	JPY	6,138,244,574 00	6,138,244,574.00	59,958,373.00	SC	FIXED	2.50			6/6/00	12/6/07
MITSUI & CO	8/10/88	JPY	1,936,961,388.00	1,936,954,826.00	18,920,174.74	SC	FIXED	2.70			5/1/02	11/1/04
MITSUI & CO.	2/13/92	JPY	891,523,844 00	63,082,251.00	616,187.43	SC	FIXED	7.50			7/27/93	1/27/00
MITSUI & CO.	9/12/89	JPY	5,003,678,342.00	4,943,678,342.00	48,289,850.04	SC	FIXED	2.50			5/10/02	11/10/05
SC JPY			16,009,589,457.00	14,203,509,708.00	138,739,882.83			2.74				
I C O	4/2/93	USD	19,300,000.00	19,300,000.00	19,300,000.00	ECD	FIXED	2.00		0.25	6/25/03	6/25/13
I C O	6/28/93	USD	24,500,000.00	24,500,000.00	24,500,000.00	ECD	FIXED	1.25		0.25	7/28/03	7/28/23
ECD USD			43,800,000.00	43,800,000.00	43,800,000.00			1.58				
BANCO BILBAO VISCAYA, S.A	6/28/93	USD	2,130,196.16	81,336.24	81,336.24	ECG	FIXED **	6.20		0.125	5/31/96	12/1/03
ECG USD			2,130,196.16	81,336.24	81,336.24			6.20				
IDA	4/3/72	USD	10,015,929 31	6,760,752.21	6,760,752.21	ODA	FIXED	0.75			9/1/82	3/1/22
MEDIOCREDITO CENTRALE	9/13/90	USD	74,715,800 00	74,481,247.69	74,481,247.69	ODA	FIXED	1 50			4/5/01	10/5/10
OPEC FUND	10/7/97	USD	6,000,000 00	2,511,632.85	2,511,632.85	ODA	FIXED	3.00			10/7/99	4/7/11
USAID	8/22/73	USD	4,200,000 00	1,862,900 59	1,862,900.59	ODA	FIXED	3.00			3/17/85	3/17/15
TOTAL - USD (ODA)			94,931,729.31	85,616,533.34	85,616,533.34			1.52				
EXIMBANK OF KOREA	6/28/95	KRW	11,322,000,000.00	-	-	ECG	FIXED	3.50			12/20/00	6/20/15
EXIMBANK OF KOREA	6/28/95	KRW	8,645,000,000 00	-	-	ECG	FIXED	3 50			12/20.00	6/20/15
ECG KRW			19,967,000,000.00	0.00	0.00			3.50%				
SWISS VOLKSBANK	4/30/90	CHF	22,950,000.00	4,395,482.15	2,695,118.66	ECG	FIXED	3.13	1.375		12/31.93	6/30.03
SWISS MIXED CREDIT FACILITY	10/21/94	CHF	40,650,000 00	27,403,651 00	17,193,900.15	ECG	FIXED	7 17	1 375		3/31.98	3 31 05
SWISS VOLKSBANK	7/8/93	CHF	6,507,169 56	3,855,452.40	2,419,030.35	ECG	FIXED	5.99			6/30.97	6/30.04
ECG SFR			70,107,169 56	35,554,585.55	22,308,049.17			6.55				
TOTAL FIXED RATE LOANS					3,168,081,760.72			6.01				
TOTAL REGULAR LOANS					6,127,824,078.13			5.44				

EXTERNAL DEBT OF THE NATIONAL POWER CORPORATION										
As of December 1999										
CREDITOR	Loan Date	Currency	Loan Amount In Orig. Currency	O/S Balance In Orig. Curreny	O/S Balance In US Dollars	Interest Type	Interest Rate, %	Spread	First repayment	Last Paydate
B. RESTRUCTURED LOANS										
1. FIRST ROUND COMMERCIAL										
1.1. COMMERCIAL										
SUMITOMO FINANCE $60.O	07/24/81	USD	3,046,400.00	76,160.00	76,160.00	LIBOR	6.125	0.8125	6/30/94	12/31/03
2. SECOND ROUND										
A. FLOATING										
2.1. COMMERCIAL										
SUMITOMO FINANCE $60.O	07/24/81	USD	1,409,600.00	563,840.00	563,840.00	LIBOR	6.125	0.8125	6/30/94	12/31/03
TOTAL COMMERCIAL		USD		640,000.00	640,000.00					
2.2. PARIS CLUB										
3. THIRD ROUND B										
EXIMBANK OF USA	03/30/82	USD	6,086,131.37	760,766.43	760,766.43	FLOAT	5.81	0.375	12/31/96	6/30/00
MARUBENI CORPORATION	06/29/79	JPY	1,675,457,366.00	209,432,169.00	2,045,733.43	LTPR	2.30	0.10	12/31/96	6/30/00
MITSUBISHI CORPORATION	12/06/79	JPY	718,882,474.00	89,860,297.00	877,755.38	LTPR	2.30	0.10	12/31/96	6/30/00
MITSUBISHI CORPORATION	11/06/75	JPY	241,647,618.00	30,205,961.00	295,051.83	LTPR	2.30	0.10	12/31/96	6/30/00
MITSUBISHI CORPORATION	03/30/78	JPY	224,618,551.00	28,077,325.00	274,259.31	LTPR	2.30	0.10	12/31/96	6/30/00
MITSUI & CO.	03/30/78	JPY	225,011,197.00	28,126,397.00	274,738.65	LTPR	2.30	0.10	12/31/96	6/30/00
KANEMATSU-GOSHO	05/07/80	JPY	2,039,768,748.00	254,971,090.00	2,490,557.61	LTPR	2.30	0.10	12/31/96	6/30/00
KANEMATSU-GOSHO	05/20/81	JPY	225,131,890.00	28,141,488.00	274,886.05	LTPR	2.30	0.10	12/31/96	6/30/00
TOTAL-JPY (SC)		JPY		668,814,727.00	6,532,982.25					
KLEINWORT BENSON, ECGD	07/20/82	USD	324,892.09	40,611.52	40,611.52	LIBOR	5.625	0.50	12/31/96	6/30/00
BANQUE PARIBAS	10/22/74	FRF	23,135.52	2,891.94	443.96	FLOAT	5.81	0.40	12/31/96	6/30/00
BANQUE PARIBAS	06/13/75	FRF	9,545,075.51	1,193,134.43	183,165.23	FLOAT	5.81	0.40	12/31/96	6/30/00
BANQUE PARIBAS ADDNI	02/26/76	FRF	4,114,739.58	514,342.43	78,959.79	FLOAT	5.81	0.40	12/31/96	6/30/00
TOTAL		FRF		1,710,368.80	262,568.98					
CREDITANSTALT	01/18/80	ATS	43,877,791.25	5,484,723.90	401,383.06	FLOAT	4.85	0.60	12/31/96	6/30/00
CREDITANSTALT	03/02/82	ATS	12,553,732.17	1,569,216.52	114,838.40	FLOAT	4.85	0.60	12/31/96	6/30/00
O. KONTROLLBANK	03/16/76	ATS	155,893,195.17	19,486,649.39	1,426,071.98	FLOAT	4.85	0.60	12/31/96	6/30/00
57 IBA	03/27/82	ATS	62,244,713.75	7,780,589.22	569,399.08	FLOAT	4.85	0.60	12/31/96	6/30/00
IBA	08/16/82	ATS	227,755,080.25	28,[illegible]	2,093,[illegible]	FLOAT	[illegible]	[illegible]	[illegible]	[illegible]

EXTERNAL DEBT OF THE NATIONAL POWER CORPORATION
As of December 1999

CREDITOR	Loan Date	Currency	Loan Amount In Orig. Currency	O/S Balance In Orig. Curreny	O/S Balance In US Dollars	Interest Type	Interest Rate, %	Spread	First repayment	Last Paydate
TOTAL		ATS		62,790,564.11	4,595,139.06					
TOTAL-FLOATING					12,192,068.24					
B. FIXED										
EFIBANCA	06/21/81	USD	2,407,305.69	300,913.22	300,913.22	FIXED	7.40		12/31/96	6/30/00
USAID	08/22/73	USD	131,465.30	16,433.16	16,433.16	FIXED	3.00		12/31/96	6/30/00
GRUPPO INDUSTRIE ELETTRO	03/25/77	USD	14,173,641.50	1,771,705.17	1,771,705.17	FIXED	7.40		12/31/96	6/30/00
TOTAL		USD	16,712,412.49	2,089,051.55	2,089,051.55					
EXIMBANK OF JAPAN	03/18/82	JPY	8,286,649,312.00	2,071,663,312.00	20,236,007.23	FIXED	8.00		12/31/96	6/30/00
EXIMBANK OF JAPAN	12/20/85	JPY	2,543,349,634.00	635,835,634.00	6,210,842.47	FIXED	8.00		12/31/96	6/30/00
TOTAL		JPY	10,829,998,946.00	2,707,498,946.00	26,446,849.70					
OECF	11/20/75	JPY	858,042,749.00	107,255,341.00	1,047,670.17	FIXED	3.20		12/31/96	6/30/00
OECF	04/28/77	JPY	95,165,971.00	11,895,749.00	116,197.68	FIXED	3.20		12/31/96	6/30/00
OECF	02/20/79	JPY	921,507,573.00	115,188,444.00	1,125,160.72	FIXED	3.20		12/31/96	6/30/00
OECF	05/20/89	JPY	1,729,591,672.00	131,053,540.00	1,280,130.98	FIXED	3.20		12/31/96	6/30/00
OECF	06/16/81	JPY	363,341,953.00	45,417,738.00	443,640.46	FIXED	3.20		12/31/96	6/30/00
OECF	05/31/82	JPY	1,406,559,572.00	175,819,950.00	1,717,409.27	FIXED	3.20		12/31/96	6/30/00
OECF	09/09/83	JPY	88,852,574.00	11,106,577.00	108,489.04	FIXED	3.20		12/31/96	6/30/00
OECF	09/09/83	JPY	419,552,230.00	52,444,027.00	512,273.26	FIXED	3.20		12/31/96	6/30/00
TOTAL		JPY	5,882,614,294.00	650,181,366.00	6,350,971.58					
LAHMEYER INTL.	01/18/79	DEM	808,537.00	101,067.13	52,036.53	FIXED	7.20		12/31/96	6/30/00
TOTAL-PC3B (FIXED)					34,938,909.37					
TOTAL-PC3B					47,130,977.61					
5. FOURTH ROUND										
A. FLOATING										
EXIMBANK OF USA	03/30/82	USD	8,719,112.34	8,719,112.34	8,719,112.34	ECNMTB	5.66	0.375	7/31/00	1/31/07
KLEINWORT BENSON, ECGD	07/02/82	USD	555,141.82	555,141.82	555,141.82	LIBOR	6.25	0.50	7/31/00	1/31/07
MARUBENI AMERICA	06/02/92	USD	2,250,580.51	2,250,580.51	2,250,580.51	LIBOR	5.85	0.10	7/31/00	1/31/07

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EXTERNAL DEBT OF THE NATIONAL POWER CORPORATION										
As of December 1999										
CREDITOR	Loan Date	Currency	Loan Amount In Orig. Currency	O/S Balance In Orig. Curreny	O/S Balance In US Dollars	Interest Type	Interest Rate, %	Spread	First repayment	Last Paydute
KANEMATSU-GOSHO	06/02/92	JPY	221,117,416.00	221,117,416.00	2,159,874.92	LTPR	2.60	0.10	7/31/00	1/31/07
KANEMATSU-GOSHO	06/02/92	JPY	206,954,850.00	206,954,850.00	2,021,534.97	LTPR	2.60	0.10	7/31/00	1/31/07
KANEMATSU-GOSHO	06/02/92	JPY	2,966,883,411.00	2,966,883,411.00	28,980,517.16	LTPR	2.60	0.10	7/31/00	1/31/07
KANEMATSU-GOSHO	06/02/92	JPY	72,185,300.00	72,185,300.00	705,106.01	LTPR	2.60	0.10	7/31/00	1/31/07
MARUBENI CORPORATION	06/29/79	JPY	1,732,621,620.00	1,732,621,620.00	16,924,247.98	LTPR	2.60	0.10	7/31/00	1/31/07
MITSUBISHI CORPORATION	12/06/79	JPY	779,340,345.00	779,340,345.00	7,612,596.49	LTPR	2.60	0.10	7/31/00	1/31/07
MITSUBISHI CORPORATION	03/30/78	JPY	407,710,551.00	407,710,551.00	3,982,516.66	LTPR	2.60	0.10	7/31/00	1/31/07
MITSUBISHI CORPORATION	11/06/79	JPY	438,620,424.00	438,620,424.00	4,284,444.30	LTPR	2.60	0.10	7/31/00	1/31/07
MITSUI & CO.	9/5/75	JPY	242,597,656.00	242,597,656.00	2,369,693.90	LTPR	2.60	0.10	7/31/00	1/31/07
MITSUI & CO.	11/6/75	JPY	377,053,268.00	377,053,268.00	3,683,056.32	LTPR	2.60	0.10	7/31/00	1/31/07
MITSUI & CO.	9/5/75	JPY	399,369,941.00	399,369,941.00	3,901,045.58	LTPR	2.60	0.10	7/31/00	1/31/07
TOYO MENKA KAISHA LTD.	12/24/92	JPY	141,722,350.00	141,722,350.00	1,384,343.91	LTPR	2.60	0.10	7/31/00	1/31/07
TOTAL		JPY	7,986,177,132.00	7,986,177,132.00	78,008,978.23					
CREDITANSTALT	01/18/80	ATS	48,956,146.02	48,956,146.02	3,582,708.68	FLOAT	4.85	0.60	7/31/00	1/31/07
CREDITANSTALT	03/02/82	ATS	18,910,589.59	18,910,589.59	1,383,914.77	FLOAT	4.85	0.60	7/31/00	1/31/07
IBA	03/27/82	ATS	73,140,935.72	73,140,935.72	5,352,599.96	FLOAT	4.85	0.60	7/31/00	1/31/07
IBA	08/16/82	ATS	363,210,845.91	363,210,845.91	26,580,496.13	FLOAT	4.85	0.60	7/31/00	1/31/07
O. KONTROLLBANK	03/16/72	ATS	211,374,585.49	211,374,585.49	15,468,814.92	FLOAT	4.85	0.60	7/31/00	1/31/07
TOTAL		ATS	715,593,102.73	715,593,102.73	52,368,534.44					
BANQUE PARIBAS	10/22/74	FRF	19,997,855.50	8,397,795.26	1,289,195.94	FLOAT	4.75		7/31/00	1/31/07
BANQUE PARIBAS	06/13/75	FRF	44,440,625.06	21,371,470.83	3,280,862.72	FLOAT	4.75		7/31/00	1/31/07
BANQUE PARIBAS ADDN1	02/26/76	FRF	8,873,650.14	4,429,945.70	680,067.54	FLOAT	4.75		7/31/00	1/31/07
TOTAL		FRF	73,312,130.70	34,199,211.79	5,250,126.20					
TOTAL-PC4 (FLOATING)					147,152,473.54					
B. FIXED										
INTERBANCA $1.129	03/18/93	USD	98,073.92	98,073.92	98,073.92	FIXED	5.45		7/31/00	1/31/07
INTERBANCA $19.5	03/18/93	USD	2,859,595.99	2,859,595.99	2,859,595.99	FIXED	5.45		7/31/00	1/31/07
INTERBANCA (LIT.)	02/01/74	USD	980,829.78	980,829.78	980,829.78	FIXED	5.45		7/31/00	1/31/07
TOTAL		USD	3,938,499.69	3,938,499.69	3,938,499.69					

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EXTERNAL DEBT OF THE NATIONAL POWER CORPORATION
As of December 1999

CREDITOR	Loan Date	Currency	Loan Amount In Orig. Currency	O/S Balance In Orig. Curreny	O/S Balance In US Dollars	Interest Type	Interest Rate, %	Spread	First repayment	Last Paydate
EFIBANCA	06/21/81	USD	3,660,213.81	3,204,847.44	3,204,847.44	FIXED	5.45		7/31/00	1/31/07
USAID	08/23/73	USD	359,895.92	359,895.92	359,895.92	FIXED	3.00		7/31/00	1/31/07
GRUPPO INDUSTRIE ELETTRO	03/25/77	USD	25,368,952.46	22,895,014.51	22,895,014.51	FIXED	5.45		7/31/00	1/31/07
EXIMBANK OF JAPAN	03/18/82	JPY	13,512,940,689.00	13,512,940,689.00	131,994,404.65	FIXED	6.30		7/31/00	1/31/07
EXIMBANK OF JAPAN	12/20/85	JPY	3,290,467,074.00	3,290,467,074.00	32,141,282.38	FIXED	6.30		7/31/00	1/31/07
TOTAL		JPY	16,803,407,763.00	16,803,407,763.00	164,135,687.03					
OECF	11/20/75	JPY	950,802,996.00	950,802,996.00	9,287,443.66	FIXED	3.20		7/31/02	1/31/12
OECF	04/28/77	JPY	114,820,151.00	114,820,151.00	1,121,563.23	FIXED	3.20		7/31/02	1/31/12
OECF	02/20/79	JPY	1,214,708,769.00	1,214,708,769.00	11,865,275.26	FIXED	3.20		7/31/02	1/31/12
OECF	05/20/89	JPY	1,827,781,717.00	1,107,949,057.00	10,822,446.39	FIXED	3.20		7/31/02	1/31/12
OECF	06/16/81	JPY	574,588,656.00	574,588,656.00	5,612,581.99	FIXED	3.20		7/31/02	1/31/12
OECF	05/31/82	JPY	2,668,664,912.00	2,668,664,912.00	26,067,518.86	FIXED	3.20		7/31/02	1/31/12
OECF	12/24/92	JPY	371,797,452.00	371,797,452.00	3,631,717.51	FIXED	3.20		7/31/02	1/31/12
OECF	12/24/92	JPY	905,550,154.00	905,550,154.00	8,845,413.90	FIXED	3.20		7/31/02	1/31/12
TOTAL		JPY	8,628,714,807.00	7,908,882,147.00	77,253,960.81					
LAHMEYER INTL. ADDN	01/18/79	DEM	76,274.61	76,274.61	39,271.58	FIXED	8.60		7/31/00	1/31/07
LAHMEYER INTL. ADDN	07/30/92	DEM	201,325.41	201,325.41	103,656.62	FIXED	8.60		7/31/00	1/31/07
LAHMEYER INTL.	07/30/92	DEM	791,709.35	791,709.35	407,628.18	FIXED	8.60		7/31/00	1/31/07
TOTAL		DEM	1,069,309.37	1,069,309.37	550,556.38					
TOTAL -PC4-(FIXED)					272,338,461.79					
TOTAL-PC4					419,490,935.32					
TOTAL RESTRUCTURED LOANS					467,261,912.94					

Appendix C IPP's Financial Cash Flow Model

Iligan City Diesel Plant I
Alsons/Tomen

Base Cost Calculation
Adjusted Based on Forex Rate Fluctuation and Escalation Rates
Discounted, Base Year 2000

Reference No.	Year Per. Start	Year Per. End	Annual Energy Generation Theoretical GWh	Available GWh	MEOT GWh	Capacity Payments Forex $M	Capacity Payments Local PM	O&M Fee Fixed Forex $M	O&M Fee Fixed Local PM	O&M Fee Variable Forex $M	O&M Fee Variable Local PM	Energy Fee Forex $M	Energy Fee Local PM	Service Fee Forex $M	Service Fee Local PM	Total IPP Payments Forex $M	Total IPP Payments Local PM	Fuel Cost Forex $M	Fuel Cost Peso PM Equivalent	Total Costs Forex $M	Total Costs Local PM
0	Aug-93	Dec-93	155.303	141.383		3.96	0.00	0.91	5.12			2.93	10.76			7.30	35.38	3.33	97.71	11.63	35.38
1	Jan-94	Dec-94	465.909	424.149		9.50	0.00	2.25	13.55			3.00	30.17			14.75	43.72	11.25	305.10	28.00	43.72
2	Jan-95	Dec-95	465.909	424.149		9.50	0.00	2.31	14.85			3.09	31.81			14.90	46.28	11.25	297.21	28.15	46.28
3	Jan-96	Dec-96	465.909	424.149		9.50	0.00	2.35	15.87			3.18	36.59			15.05	52.46	11.25	289.30	28.31	52.46
4	Jan-97	Dec-97	465.909	424.149		9.50	0.00	2.44	16.92			3.25	40.50			15.19	57.42	11.25	294.94	28.44	57.42
5	Jan-98	Dec-98	465.909	424.149		9.50	0.00	2.48	18.64			3.30	38.97			15.28	57.81	11.25	331.56	28.53	57.61
6	Jan-99	Dec-99	465.909	424.149		9.50	0.00	2.50	19.52			3.33	38.97			15.33	58.48	11.50	470.46	28.83	58.48
7	Jan-00	Dec-00	465.909	424.149		9.50	0.00	2.50	19.52			3.33	38.97			15.33	58.48	11.50	460.19	28.83	58.48
8	Jan-01	Dec-01	465.909	424.149		9.50	0.00	2.50	19.52			3.33	38.97			15.33	58.48	11.50	460.19	28.83	58.48
9	Jan-02	Dec-02	465.909	424.149		9.50	0.00	2.50	19.52			3.33	38.97			15.33	58.46	11.50	460.19	28.53	58.48
10	Jan-03	Jul-03	310.606	282.766		5.54	0.00	1.48	11.38			1.94	22.73			8.84	34.11	7.87	308.79	16.61	34.11
														NPV		46.07	153.04			81.36	153.04

General Data

Cooperation Period	year	10		
Target/Actual Start Date	year	31-Jul-93		
Target/Actual Completion Date				
Contracted Capacity	MW	58.00		
Plant Factor	%	91.7%		
Allowable Downtime	GWh/year			
Planned Outage				
Unplanned Outage		41.76		
Available Annual Energy Generation (GWh)				
Discount Rates	Forex	8.0%		
	Local	15.0%		
Rates				
Contract Capacity Rate (CCR)				
Forex	$/kW-mo	13.848 $/kW/mo.		
Local	P/kW-mo.	0		
Fixed O&M Rate (FOMR)				
Forex	$/kW-mo.	3.061 $/kW/mo.		
Local	P/kW-mo	18 P/kW/mo		
Variable O&M Rate (VOMR)				
Forex	$/kWh	0		
Local	P/kWh	0		
Base Energy Rate (BER)				
Forex	$/kWh	0.0061 $/kWh		
Local	P/kWh	0.07 P/kWh		
Service Fee Rate				
Forex	$/kW-mo	0		
Local	P/kW-mo	0		
Infrastructure Fee				
Forex	$/kW-mo	0		
Local	P/kW-mo	0	1999 Fuel	
Fuel Cost	$/kwh	0.0241	0.0247	
Type of Fuel		Bunker C	Bunker C	
Fuel Price	$/bbl or $/MT	17.7 (MOPS) J	18.0998	MOPS Average August 1999
Fuel Heating Value	BTU/bbl	17216	17216	
Conversion Rate		6.1988	6.1988	
Plant Heat Rate	BTU/kWh	8351	8351	
Guaranteed	BTU/kWh	0		
Net Plant Heat Rate	BTU/kWh	0		
Items to be Escalated		EF $ OM		
Effective Date of Escalation		29-Jun-92		
Escalation Formula	US Dollars denominated Fees = UIC/UIB			
	Peso denominated O&M Fees= PII/PIo			
	Peso denominated Energy Fees= LOII/LOIo			

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Iligan City Diesel Plant II
Alsons/Tomen

Base Cost Calculation
Adjusted Based on Forex Rate Fluctuation and Escalation Rates
Discounted: Base Year 2000

Reference No	Year		Annual Energy Generation Theoretical GWh	Available GWh	GWh	Capacity Fees	Local PM	O&M Fee Fixed Forex $M	Fixed Local PM	Variable Forex $M	Variable Local PM	Energy Fee Forex $M	Energy Fee Local PM	Service Fee Forex $M	Service Fee Local P	Total IPP Payments Forex $M	Total IPP Payments Local PM	Fuel Cost Forex $M	Fuel Cost Peso PM Equivalent	Total Payments Forex $M	Total Payments Local PM
1	Dec-93	Dec-93	26.864	23.384		0.69	0.00	0.14	0.85			1.71	22.57			2.54	23.41	0.59	15.05	3.13	23.41
2	Jan-94	Dec-94	322.368	280.608		7.84	0.00	1.67	11.24			1.69	21.26			11.20	32.52	7.06	191.47	18.26	32.52
3	Jan-95	Dec-95	322.368	280.608		7.99	0.00	1.75	12.40			1.76	20.88			11.50	33.27	7.06	186.50	18.56	33.27
4	Jan-96	Dec-96	322.368	280.608		9.04	0.00	2.02	13.40			2.03	21.87			13.10	35.27	7.06	181.54	20.16	35.27
5	Jan-97	Dec-97	322.368	280.608		8.61	0.00	1.95	14.52			1.97	25.32			12.53	39.84	7.06	185.08	19.59	39.84
6	Jan-98	Dec-98	322.368	280.608		7.47	0.00	1.72	15.47			1.74	28.02			10.94	43.50	7.06	208.06	18.00	43.50
7	Jan-99	Dec-99	322.368	280.608		7.36	0.00	1.71	17.05			1.73	26.96			10.81	44.01	7.06	288.70	17.87	44.01
8	Jan-00	Dec-00	322.368	280.608		7.36	0.00	1.71	17.85			1.73	26.96			10.80	44.81	7.05	282.40	17.86	44.81
9	Jan-01	Dec-01	322.368	280.608		7.36	0.00	1.71	17.85			1.73	26.96			10.80	44.81	7.06	282.40	17.86	44.81
10	Jan-02	Dec-02	322.368	280.608		7.36	0.00	1.71	17.85			1.73	26.96			10.80	44.81	7.06	282.40	17.86	44.81
11	Jan-03	Dec-03	322.368	280.608		7.36	0.00	1.71	17.85			1.73	26.96			10.80	44.81	7.06	282.40	17.86	44.81
12	Jan-04	Dec-04	322.368	280.608		7.36	0.00	1.71	17.85			1.73	26.96			10.80	44.81	7.06	282.40	17.86	44.81
13	Jan-05	Nov-05	299.504	257.224		6.75	0.00	1.57	16.38			1.59	24.71			9.91	41.07	6.42	258.80	16.38	41.07
														NPV		49.39	167.98			81.65	167.98

Cooperation Period	year	12	
Target/Actual Start Date	year	1-Dec-93	
Target/Actual Completion Date	MW		
Contracted Capacity	%	40.00	
Plant Factor	%	92%	
Allowable Downtime	GWh/year		
Planned Outage		41.76	
Unplanned Outage			
Available Annual Energy Generation	GWh		
Discount Rates	Forex	0.08	
	Local	0.15	
Rates			
Contract Capacity Rate (CCR)			
Forex	DM/kW-mo.	27.000 (1-7 yrs)	
	DM/kW-mo.	18.300 (8-12 yrs)	
Local	P/kW-mo.	0	
Fixed O&M Rate (FOMR)			
Forex	DM/kW-mo.	5.52 DM/kW/mo.	
Local	P/kW-mo.	21.22	
Variable O&M Rate (VOMR)			
Forex	$/kWh	0	
Local	P/kWh	0	
Base Energy Rate (BER)			
Forex	DM/kWh	0.00828 DM/kWh	
Local	P/kWh	0.07	
Service Fee Rate			
Forex	$/kW-mo	0	
Local	P/kW-mo	0	
Infrastructure Fee			
Forex	$/kW-mo	0	
Local	P/kW-mo	0	1999 Fuel
Fuel Cost	$/kwh	0.0246	0.0251
Type of Fuel		Bunker C	Bunker C
Fuel Price	$/bbl or $/MT	17.7 (MOPS)	18.0998 MOPS Average August 1999
Fuel Heating Value	BTU/bbl	17216	17216
Conversion Rate		6.1988	6.1988
Plant Heat Rate	BTU/kWh	8503	8503
Guaranteed	BTU/kWh	0	0
Net Plant Heat Rate	BTU/kWh	0	0
Items to be Escalated		EF & OM	EF & OM
Effective Date of Escalation		17-Aug-92	
Escalation Formula	DM denominated Fees = GIt/GIo		
	Peso denominated O&M Fees = PIt/PIo		
	Peso denominated Energy Fees = LOIt/LOIo		

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Zamboanga Diesel Power Plant
Alsons/Tomen

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference			Annual Energy Generation			Capacity Payments		Oper. & Maint. Fee Fixed		Capacity Payments		Oper. & Maint. Fee Fixed		Energy Fee		Infrastructure Fee		Total IPP Payments		Fuel Cost		Total Cost	
No.	Year Period Start	Period End	Theoretical GWh	Available GWh	MEOT GWh	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Peso PM Equivalent	Forex $M	Local PM
1	1-Oct-97	31-Dec-97	62.05	62.05		1.04	8.98	0.12	3.22	0.19	0.00	0.23	0.00	0.16	1.71	0.05		1.78	13.90	1.53	40.10	2.90	13.90
2	1-Jan-98	31-Dec-98	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	445.54	31.49	166.84
3	1-Jan-99	31-Dec-99	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	618.22	31.49	166.84
4	1-Jan-00	31-Dec-00	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
5	1-Jan-01	31-Dec-01	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
6	1-Jan-02	31-Dec-02	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
7	1-Jan-03	31-Dec-03	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
8	1-Jan-04	31-Dec-04	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
9	1-Jan-05	31-Dec-05	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
10	1-Jan-06	31-Dec-06	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
11	1-Jan-07	31-Dec-07	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
12	1-Jan-08	31-Dec-08	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
13	1-Jan-09	31-Dec-09	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
14	1-Jan-10	31-Dec-10	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
15	1-Jan-11	31-Dec-11	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
16	1-Jan-12	31-Dec-12	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
17	1-Jan-13	31-Dec-13	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
18	1-Jan-14	31-Dec-14	744.60	613.20		12.43	107.72	1.48	38.65	2.23	0.00	2.74	0.00	1.85	20.47	0.60		21.35	166.84	15.12	604.72	31.49	166.84
19	1-Jan-15	30-Nov-15	682.55	551.15		11.40	98.74	1.32	35.43	2.05	0.00	2.51	0.00	1.70	18.77	0.55		15.56	152.94	13.59	543.51	28.60	151.94
																NPV		188.43	991.93			277.89	991.93

General Data

Cooperation Period	year	18
Date of Commercial Operation	year	1-Apr-98
Contracted Capacity	MW	100.00
Plant Factor	%	85%
Annual Energy Generation	GWh	744.60
Available Energy	GWh	613.20
Allowable Downtime	GWh	131.40
Planned	GWh	72.00
Unplanned	GWh	

Rates

Contract Capacity Rate (CCR)				
Forex	$/kW-mo	10.36	$/kW/mo for PP	
	$/kW-mo.	1.86	$/kW/mo for FGD	
Local	P/kW-mo	89.77	P/kW/mo for PP	
Fixed O&M Rate (FOMR)				
Forex	$/kW-mo	1.24	$/kW/mo for PP	
	$/kW-mo.	2.30	$/kW/mo for FGD	
Local	P/kW-mo.	30.46	P/kW/mo for PP	
Variable O&M Rate (VOMR)				
Forex	$/kWh			
Local	P/kWh			
Base Energy Rate (BER)				
Forex	$/kWh	0.0025	$/kWh	
Local	P/kWh	0.026	P/kWh	
Service Fee Rate				
Forex	$/kW-mo	0		
Local	P/kW-mo	0		
Infrastructure Fee				
Forex	$/kW-mo	0.5026		
Local	P/kW-mo			Fuel 1999
Fuel Cost	$/kWh	0.0247		0.0297
Type of Fuel		Diesel		Diesel
Fuel Price	$/bbl/$/mT	17.7		21.3
Fuel Heating Value	BTU/lb	17216		17216
conversion rate		6.2614		6.2614
Plant Heat Rate		8441		8440.94
Guaranteed	BTU/kWh	0		
Net Plant Heat Rate	BTU/kWh	0		
Items to be Escalated		EF & OM		
Effective Date of Escalation		29-Mar-96		

Escalation Formula
Dollar denominated fees = 0.75 * (CE1/CEo) + 0.25 * (CP1/CPo)
Peso denominated fees = 0.20 * (WPG1/WPGo) + 0.20 * (LCP1/LCPo) + 0.60 * (WPC1/WPCo)

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Pinamucan, Batangas Diesel PP
Enron Power Corp.

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference No.	Year Period Start	Period End	Annual Energy Generation Theoretical GWh	Available GWh	MEOT GWh	Capacity Payments Forex $M	Local PM	Operation and Maintenance Fee Fixed Forex $M	Fixed Local PM	Variable Forex $M	Variable Local PM	Energy Fee Forex $M	Local PM	Service Fee Forex $M	Local PM	Infrastructure Fee Forex $M	Local PM	Total IPP Payments Forex $M	Local PM	Fuel Cost Forex $M	Peso PM Equivalent	Total Cost Forex $M	Local PM
1	Jul-93	Dec-93	390.92	332.23		18.90	-	1.37	11.79									20.27	11.79	8.54	231.56	28.81	11.79
2	Jan-94	Dec-94	781.83	664.46		37.80	-	2.80	28.00									40.60	28.00	17.08	451.11	57.68	28.00
3	Jan-95	Dec-95	781.83	664.46		37.80	-	2.82	28.11									40.62	28.11	17.08	439.11	57.70	28.11
4	Jan-96	Dec-96	781.83	664.46		37.80	-	2.92	30.45									40.72	30.45	17.08	447.68	57.80	30.45
5	Jan-97	Dec-97	781.83	664.46		37.80	-	3.09	32.46									40.89	32.46	17.08	503.26	57.97	32.46
6	Jan-98	Dec-98	781.83	664.46		37.80	-	3.10	35.76									40.90	35.76	17.08	698.31	57.98	35.76
7	Jan-99	Dec-99	781.83	664.46		37.80	-	3.09	37.45									40.89	37.45	17.41	696.35	58.30	37.45
8	Jan-00	Dec-00	781.83	664.46		37.80	-	3.09	37.45									40.89	37.45	17.41	648.35	58.30	37.45
9	Jan-01	Dec-01	781.83	664.46		37.80	-	3.09	37.45									40.89	37.45	17.41	695.35	58.30	37.45
10	Jan-02	Dec-02	781.83	664.46		37.80	-	3.09	37.45									40.89	37.45	17.41	694.33	58.30	37.45
11	Jan-03	Jun-03	390.92	332.23		18.90	-	1.55	18.72									20.45	18.72	8.70	348.18	29.15	18.72
																NPV		120.42	96.21			171.68	96.21

General Data

Cooperation Period	year	10		
Date of Commercial Operation	year	1-Jul-93		
Contracted Capacity	MW	105.00		
Plant Factor	%	85%		
Allowable Downtime	hrs/yr/unit	1314		
Planned Outage				
Unplanned Outage				
Available Annual Energy Generation	GWh	664.46		
Discount Rates	Forex	8.0%		
	Local	15.0%		
Rates				
Contract Capacity Rate (CCR)				
Forex	$/kW-mo.	30.0		
Local	P/kW-mo.	0.00		
Fixed O&M Rate (FOMR)				
Forex	$/kW-mo.	2.170	$/kW/mo	
Local	P/kW-mo.	18.720	P/kW/mo	
Variable O&M Rate (VOMR)				
Forex	$/kWh			
Local	P/kWh			
Base Energy Rate (BER)				
Forex	$/kWh	0.0000		
Local	P/kWh	0.0000		
Service Fee Rate				
Forex	$/kW-mo	0.0000		
Local	P/kW-mo	0.0000		
Infrastructure Fee				
Forex	$/kW-mo	0.0000		
Local	P/kW-mo	0.0000	fuel 1999	
Fuel Cost	$/kWh	0.0257	0.0262	
Type of Fuel		Bunker C	Bunker C	
Fuel Price	$/bbl/$/mT	17.7 (MOPS) J	18.0998	MOPS Average August 1999 for September delivery
Fuel Heating Value	BTU/lb	17216	17216	
conversion rate		6.55	6.55	
Plant Heat Rate				
Guaranteed		0	0	
Net Plant Heat Rate	BTU/kWh	8400	8400	
	BTU/kWh			
Items to be Escalated		OM	OM	
Effective Date of Escalation		1-Jan-93		

Escalation Formula

Peso OM = PI1/PIo
Dollar OM = 20% US Producers Price Index + 40% World Oil Index + 40% Selected European Industrial Index

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Bauang, La Union Diesel PP
First Private Power Corp.

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference No	Year Period Start	Period End	Annual Energy Generation Theoretical GWh	Available GWh	MEOT GWh	Capacity Payments Forex $M	Local PM	Operation and Maintenance Fee Fixed Forex $M	Fixed Local PM	Variable Forex $M	Variable Local PM	Energy Fee Forex $M	Local PM	Service Fee Forex $M	Local PM	Total IPP Payments Forex $M	Local PM	Fuel Cost Forex $M	Peso PM Equivalent	Total Payments Forex $M	Local PM
1	Feb-95	Dec-95	1553.81	1340.96		33.11	0.00	6.23	42.28			6.55	95.82			45.90	138.10	32.71	887.10	78.61	138.10
2	Jan-96	Dec-96	1695.06	1462.86		36.12	0.00	7.00	49.97			7.36	121.01			50.47	170.98	35.69	942.82	86.16	170.98
3	Jan-97	Dec-97	1695.06	1462.86		36.12	0.00	7.17	53.26			7.53	133.93			50.82	187.19	35.69	917.73	86.51	187.19
4	Jan-98	Dec-98	1695.06	1462.86		36.12	0.00	7.28	58.67			7.65	128.86			51.05	187.54	35.69	935.64	86.74	187.54
5	Jan-99	Dec-99	1695.06	1462.86		36.12	0.00	7.34	61.44			7.72	128.86			51.18	190.30	35.69	1051.81	86.87	190.30
6	Jan-00	Dec-00	1695.06	1462.86		36.12	0.00	7.34	61.44			7.72	128.86			51.18	190.30	35.69	1459.47	86.87	190.30
7	Jan-01	Dec-01	1695.06	1462.86		36.12	0.00	7.34	61.44			7.72	128.86			51.18	190.30	35.69	1427.60	86.87	190.30
8	Jan-02	Dec-02	1695.06	1462.86		36.12	0.00	7.34	61.44			7.72	128.86			51.18	190.30	35.69	1427.60	86.87	190.30
9	Jan-03	Dec-03	1695.06	1462.86		36.12	0.00	7.34	61.44			7.72	128.86			51.18	190.30	35.69	1427.60	86.87	190.30
10	Jan-04	Dec-04	1695.06	1462.86		36.12	0.00	7.34	61.44			7.72	128.86			51.18	190.30	35.69	1427.60	86.87	190.30
11	Jan-05	Dec-05	1695.06	1462.86		36.12	0.00	7.34	61.44			7.72	128.86			51.18	190.30	35.69	1427.60	86.87	190.30
12	Jan-06	Dec-06	1695.06	1462.86		36.12	0.00	7.34	61.44			7.72	128.86			51.18	190.30	35.69	1427.50	86.87	190.30
13	Jan-07	Dec-07	1695.06	1462.86		36.12	0.00	7.34	61.44			7.72	128.86			51.18	190.30	35.69	1427.60	86.87	190.30
14	Jan-08	Dec-08	1695.06	1462.86		36.12	0.00	7.34	61.44			7.72	128.86			51.18	190.30	35.69	1427.60	86.87	190.30
15	Jan-09	Dec-09	1695.06	1462.86		36.12	0.00	7.34	61.44			7.72	128.86			51.18	190.30	35.69	1427.60	86.87	190.30
16	Jan-10	Jan-10	141.28	121.93		3.01	0.00	0.61	5.12			0.64	10.74			4.27	15.86	2.97	118.80	7.24	15.88
														NPV		345.25	958.50			586.01	958.50

General Data

Cooperation Period	year	15	
Date of Commercial Operation	year	1-Feb-95	
Contracted Capacity	MW	215.00	
Plant Factor	%	90%	
Allowable Downtime			
Planned Outage		1200	hours/engineper year
Unplanned Outage			
Available Annual Energy Generation	GWh	1462.86	
Discount Rates	Forex	8.0%	
	Local	15.0%	
Rates			
Contract Capacity Rate (CCR)			
Forex	$/kW-mo.	14.00	$/kW/mo
Local	P/kW-mo.	0.00	
Fixed O&M Rate (FOMR)			
Forex	$/kW-mo.	2.50	$/kW/mo.
Local	P/kW-mo.	15.00	P/kW/mo
Variable O&M Rate (VOMR)			
Forex	$/kWh		
Local	P/kWh		
Base Energy Rate (BER)			
Forex	$/kWh	0.004	$/kWh
Local	P/kWh	0.06	P/kWh
Service Fee Rate			
Forex	$/kW-mo	0	
Local	P/kW-mo	0	
Infrastructure Fee			
Forex	$/kW-mo	0	
Local	P/kW mo	0	
Fuel Cost	$/kWh	0.0239	
Type of Fuel		Bunker C	
Fuel Price	$/bbl or $/mT	17.7	(MOPS) Janu
Fuel Heating Value	BTU/bbl	17218	
Conversion Rate		6.1988	
Plant Heat Rate		8250	
Guaranteed	BTU/kWh		
Net Plant Heat Rate	BTU/kWh		
Items to be Escalated		EF & OM	
Effective Date of Escalation		11-Jan-93	

Fuel 1999	
0.0244	
Bunker C	
18.0998	MOPS Average August 1999
17218	
6.1988	
8250	

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Escalation Formula

Dollar denominated fees = USt1/USto
Peso denominated OM Fees = PI1/PIo
Peso denominated Energy Fees = LOI1/LOIo

Toledo Cebu Coal Thermal Plant
Atlas Consolidated Mining

Base Cost Calculation

Reference No	Year Period Start	Period End	Annual Energy Generation Theoretical GWh	Guaranteed GWh	MEOT GWh	Capacity Payments Forex $M	Local PM	Operation and Maintenance Fee Fixed Forex $M	Fixed Local PM	Variable Forex $M	Variable Local PM	Energy Fee Forex $M	Local PM	Service Fee Forex $M	Local PM	Infrastructure Fee Forex $M	Local PM	Total PP Payments Forex $M	Local PM	Fuel Cost Forex $M	Peso PM Equivalent	Total Costs Forex $M	Local PM
1	1-Feb-93	1-Dec-93			239.12								289.12						239.12	4.83	130.92	4.83	239.12
2	1-Jan-94	1-Dec-94			481.90								481.90						481.90	9.04	212.51	9.04	481.90
3	1-Jan-95	1-Dec-95			481.90								481.90						481.90	9.04	206.54	9.04	481.90
4	1-Jan-96	1-Dec-96			481.90								481.90						481.90	9.04	210.89	9.04	481.90
5	1-Jan-97	1-Dec-97			481.90								481.97						481.90	9.04	237.38	9.04	481.90
6	1-Jan-98	1-Dec-98			481.90								481.80						481.90	9.04	328.97	9.04	481.92
7	1-Jan-99	1-Dec-99			481.90								481.90						481.90	9.04	321.79	9.04	481.90
8	1-Jan-00	1-Dec-00			481.60								481.90						481.90	9.04	121.78	9.04	481.90
9	1-Jan-01	1-Dec-01			481.60								481.30						481.60	9.64	321.74	9.04	481.90
10	1-Jan-02	1-Dec-02			481.90								481.90						481.90	9.64	321.75	9.04	481.90
11	1-Jan-03	31-Jan-03			192.39								192.23						192.38	3.22	128.49	3.22	192.10
																NPV			1,210.22			23.19	1,210.22

Assumptions

Cooperation Period	year	10	
Date of Commercial Operation	year	1-Feb-93	
Contracted Capacity	MW	55.00	
Plant Factor	%	75%	
Minimum Power Supply Commitment	GWh	315.40	first year (1993)
		481.90	1994 onwards
Allowable Downtime	no. of days/unit	none	
Planned Outage			
Unplanned Outage			
Discount Rates	Forex	9.0%	
	Local	15.0%	
Contract Capacity Rate (CCR)			
Forex	$/kWh	0.00000	
Local	P/kWh	0.00000	
Fixed O&M Rate (FOMR)			
Forex	$/kW-mo	0.00000	
Local	P/kW-mo	0.00000	
Variable O&M Rate (VOMR)			
Forex	$/kWh		
Local	P/kWh		
Base Energy Rate (BER)			
Forex	$/kWh	0.00000	
Local	P/kWh	1.00000	
Service Fee Rate			
Forex	$/kW-mo	0	
Local	P/kW-mo	0	
Infrastructure Fee			
Forex	$/kW-mo	0	
Local	P/kW-mo	0	1993 fuel
Fuel Cost	$/kWh	0.0167	0.0193
Type of Fuel		Coal	Forex Cebu
Fuel Price	$/dry/mt	45	27.00 CIF, Indonesian coal/contract year May-August 1994
Fuel Heating Value	BTU/lb	11150	11150
Conversion rate		3.259	3.955
Plant Heat Rate		2300	2300
Guaranteed	BTU/kWh	15770.12204	
Net Plant Heat Rate	BTU/kWh		
Items to be Escalated	shall be reviewed annually for possible adjustments to cover significant effects of inflationary factors that may substantially influence the cost of producing electricity to maintain competitiveness in its pricing		
Effective Date of Escalation	1-Nov-93		
Escalation Formula (none)			

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Pagbilao Coal Fired TPP
Hopewell Energy L /Southern Energy

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference			Annual Energy Generation			Capacity Payments		Operation and Maintenance Fee				Energy Fee		Service Fee		Infrastructure Fee		Total IPP Payments		Fuel Cost		Total Costs	
	Year							Fixed		Variable													
No	Period Start	Period End	Theoretical GWh	Available GWh	MEOT GWh	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Peso PM Equivalent	Forex $M	Local PM
1	Jun-95	Dec-95	2861.60	2289.28		102.90	-	7.60	17.34			5.72	30.62	8.82	-	7.35	-	132.39	47.96	31.16	677.32	163.55	47.96
2	Jan-96	Dec-96	4905.60	3924.48		176.40	-	13.33	32.20			9.70	117.67	15.12	-	12.60	-	227.14	149.87	53.41	1298.45	280.55	149.87
3	Jan-97	Dec-97	4905.60	3924.48		176.40	-	13.38	34.32			9.72	125.43	15.12	-	12.60	-	227.20	159.75	53.41	1467.65	280.61	159.75
4	Jan-98	Dec-98	4905.60	3924.48		176.40	-	12.88	37.81			9.37	138.16	15.12	-	12.60	-	228.38	175.99	53.41	1382.65	279.79	175.99
5	Jan-99	Dec-99	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	1448.48	279.58	184.29
6	Jan-00	Dec-00	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	1410.93	279.58	184.29
7	Jan-01	Dec-01	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	1373.36	279.58	184.29
8	Jan-02	Dec-02	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	1400.18	279.58	184.29
9	Jan-03	Dec-03	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	1574.03	279.58	184.29
10	Jan-04	Dec-04	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	2184.10	279.58	184.29
11	Jan-05	Dec-05	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	2136.40	279.58	184.29
12	Jan-06	Dec-06	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	2136.40	279.58	184.29
18	Jan-12	Dec-12	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	2136.40	279.58	184.29
19	Jan-13	Dec-13	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	2136.40	279.58	184.29
20	Jan-14	Dec-14	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	2136.40	279.58	184.29
21	Jan-15	Dec-15	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	2189.61	279.58	184.29
22	Jan-16	Dec-16	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	2243.22	279.58	184.29
23	Jan-17	Dec-17	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	2296.63	279.58	184.29
24	Jan-18	Dec-18	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	2350.04	279.58	184.29
25	Jan-19	Dec-19	4905.60	3924.48		176.40	-	12.76	39.60			9.29	144.70	15.12	-	12.60	-	226.17	184.29	53.41	2403.45	279.58	184.29
26	Jan-20	May-20	2044.00	1635.20		73.50	-	5.32	18.50			3.87	80.29	6.30	-	5.25	-	94.24	78.79	22.25	1023.50	118.49	78.79
																	NPV	2239.33	1157.63			2788.14	1157.63

Assumptions

Cooperation Period	Year	25.00		
Date of Commercial Operation	Year	1-Jun-95		
Contracted Capacity	MW	700.00		
Plant Factor	%	0.80		
Allowable Downtime	no of days/unit	73	1752.00 hours	
Planned Outage				
Unplanned Outage				
Available Annual Energy Generation				
Discount Rates	Forex	8.0%		
	Local	15.0%		
Rates				
Contract Capacity Rate (CCR)				
Forex	$/kW-mo	21.00 $/kW/mo.		
Local	P/kW-mo	0.00		
Fixed O&M Rate (FOMR)				
Forex	$/kW-mo	1.60 $/kW/mo		
Local	P/kW-mo	1.71 P/kW/mo		
Variable O&M Rate (VOMR)				
Forex	$/kWh			
Local	P/kWh			
Base Energy Rate (BER)				
Forex	$/kWh	0.0020 $/kWh (1st 75% Cap)		
Local	P/kWh	0.0107 P/kWh (1st 75% Cap)		
	$/kWh	0.0019 $/kWh (above 75%)		
	P/kWh	0.0107 P/kWh (above 75%)		
Service Fee Rate				
Forex	$/kW-mo	1.80		
Local	P/kW-mo	0.00		
Infrastructure Fee				
Forex	$/kW-mo	1.50		
Local	P/kW-mo	0.00		
Fuel Cost	$/kWh	0.017	Apr 1999	
			0.014	
Type of Fuel		Coal	Coal	
Fuel Price	$/bbl/$/mT	45.00	36.68	CIF, based on Indonesian coal contract for April 1999-March 2000 for Pagbilao
Fuel Heating Value	BTU/lb	11160.00	11160.00	
Conversion Rate		3.97	3.97	
Plant Heat Rate	kcal/kWh	2300.00	2300.00	
Guaranteed	BTU/kWh			
Net Plant Heat Rate	BTU/kWh	8702.00	8702.00	
Items to be Escalated		EF & OM		
Effective Date of Escalation		1-Mar-49		
Escalation Formula	Peso = Pi1/Pio			
	Dollar = [JPi1/JPio + USi1/USio]/2			

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General Santos Diesel Plant
Alsons/Tomen

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference No.	Year Period Start	Period End	Annual Energy Generation Theoretical GWh	Available GWh	MEQT GWh	Capacity Payments Forex $M	Local PM	Oper. & Main. Fee Fixed Forex $M	Local PM	Capacity Payments Forex $M	Local PM	Oper. & Main. Fee Fixed Forex $M	Local PM	Energy Fee Forex $M	Local PM	Infrastructure Fee Forex $M	Local PM	Total IPP Payments Forex $M	Local PM	Fuel Cost Forex $M	Peso PM Equivalent	Total Costs Forex $M	Local PM
1	Apr-98	Dec-98	279.2	230.0		5.25	40.61	0.56	16.87	1.11	0.00	0.64	0.00	0.53	7.83	0.23		6.56	65.31	5.66	148.50	12.22	65.31
2	Jan-99	Dec-99	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	222.59	16.30	87.08
3	Jan-00	Dec-00	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	308.86	16.30	87.08
4	Jan-01	Dec-01	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
5	Jan-02	Dec-02	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
6	Jan-03	Dec-03	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
7	Jan-04	Dec-04	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
8	Jan-05	Dec-05	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
9	Jan-06	Dec-06	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
10	Jan-07	Dec-07	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
11	Jan-08	Dec-08	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
12	Jan-09	Dec-09	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
13	Jan-10	Dec-10	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
14	Jan-11	Dec-11	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
15	Jan-12	Dec-12	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
16	Jan-13	Dec-13	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
17	Jan-14	Dec-14	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
18	Jan-15	Dec-15	372.3	306.6		7.00	54.15	0.74	22.50	1.48	0.00	0.85	0.00	0.70	10.44	0.30		8.74	87.08	7.55	302.12	16.30	87.08
19	Jan-16	Mar-16	93.075	27.375		1.76	13.54	0.19	5.62	0.37	0.00	0.21	0.00	0.06	0.93	0.08		2.07	20.05	0.62	26.97	2.75	20.05
																NPV		77.39	518.51			144.24	518.51

General Data

Cooperation Period	year	18	
Date of Comm'l Oper.	year	Apr-98	
Contracted Capacity	MW	50.00	
Plant Factor	%	85%	
Annual Energy Generation		372.30	
Available Energy		306.60	
Allowable Downtime		65.70	
Planned		36.00	
Unplanned			

Rates

Cost Capacity Rate (CCR)			
Forex	$/kW-mo	11.67 $/kW/mo for PP	
	$/kW-mo	2.46 $/kW/mo for FGD	
Local	P/kW-mo	90.24 P/kW/mo for PP	
Fixed O&M Rate (FOMR)			
Forex	$/kW-mo	1.24 $/kW/mo for PP	
	$/kW-mo.	1.42 $/kW/mo for FGD	
Local	P/kW-mo.	35.46 P/kW/mo for PP	
Variable O&M Rate (VOMR)			
Forex	$/kWh		
Local	P/kWh		
Base Energy Rate (BER)			
Forex	$/kWh	0.0023 $/kWh	
Local	P/kWh	0.0322 P/kWh	
Service Fee Rate			
Forex	$/kW-mo		
Local	P/kW-mo		
Infrastructure Fee			
Forex	$/kW-mo	0.5025 $/kW/mo	
Local	P/kW-mo	#REF!	Fuel 1999
Fuel Cost	$/kWh	0.0246	0.0296
Type of Fuel		Diesel	Diesel
Fuel Price	$bbl/$/mT	17.7	21.3
Fuel Heating Value	BTU/lb	17216	17216
conversion rate		6.2614	6.2614
Plant Heat Rate		8434	8434.2
Guaranteed	BTU/kWh	0	
Net Plant Heat Rate	BTU/kWh	0	
Items to be Escalated		EF & OM	
Effective Date of Escalation		28-Mar-96	

Escalation Formula

Dollar denominated fees = 0.75 * (CE1/CEo) + 0.25 * (CP1/CPo)
Peso denominated fees = 0.20 * (WPG1/WPGo) + 0.20 * (LCP1/LCPo) + 0.60 * (WPC1/WPCo)

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Mindanao (Mt. Apo II) Geothermal Power Plant (With Steam Cost)
PNOC-EDC

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference Year		Annual Energy Generation			Capacity Payments		Operation and Maintenance Fee				Energy Fee		Service Fee		Infrastructure Fee		Fuel Cost		Total IPP Payments*	
							Fixed		Variable											
Period Start	Period End	Theoretical GWh	Guaranteed GWh	MEOT GWh	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Peso PM Equivalent	Forex $M	Local PM
Jun-99	Dec-99	246.56	232.17	232								456.79							-	456.79
Jan-00	Dec-00	422.87	398.00	398								783.07							-	783.07
Jan-01	Dec-01	422.87	398.00	398								783.07							-	783.07
Jan-02	Dec-02	422.87	398.00	398								783.07							-	783.07
Jan-03	Dec-03	422.87	398.00	398								783.07							-	783.07
Jan-04	Dec-04	422.87	398.00	398								783.07							-	783.07
Jan-05	Dec-05	422.87	398.00	398								783.07							-	783.07
Jan-06	Dec-06	422.87	398.00	398								783.07							-	783.07
Jan-07	Dec-07	422.87	398.00	398								783.07							-	783.07
Jan-08	Dec-08	422.87	398.00	398								783.07							-	783.07
Jan-09	Dec-09	422.87	398.00	398								783.07							-	783.07
Jan-10	Dec-10	422.87	398.00	398								783.07							-	783.07
Jan-11	Dec-11	422.87	398.00	398								783.07							-	783.07
Jan-12	Dec-12	422.87	398.00	398								783.07							-	783.07
Jan-13	Dec-13	422.87	398.00	398								783.07							-	783.07
Jan-14	Dec-14	422.87	398.00	398								783.07							-	783.07
Jan-15	Dec-15	422.87	398.00	398								783.07							-	783.07
Jan-16	Dec-16	422.87	398.00	398								783.07							-	783.07
Jan-17	Dec-17	422.87	398.00	398								783.07							-	783.07
Jan-18	Dec-18	422.87	398.00	398								783.07							-	783.07
Jan-19	Dec-19	422.87	398.00	398								783.07							-	783.07
Jan-20	Dec-20	422.87	398.00	398								783.07							-	783.07
Jan-21	Dec-21	422.87	398.00	398								783.07							-	783.07
Jan-22	Dec-22	422.87	398.00	398								783.07							-	783.07
Jan-23	May-23	422.87	398.00	398								783.07							-	783.07
Jan-24	May-24	176.1	398.00	166								783.07							-	783.07

* Including Fuel

NPV [illegible]

General Data

Cooperation Period	year	25
Date of Commercial Operation	year	Jul-99
Contracted Capacity	MW	48.25
Plant Factor	%	100%
MEOT	GWh	398
Allowable Outage Hours	hours	500
Available Energy	GWh	390.55
Rates		
Contract Capacity Rate (CCR)		
Forex	$/KW-mo.	
Local	P/KW-mo.	
Fixed O&M Rate (FOMR)		
Forex	$/KW-mo.	
Local	P/KW-mo.	
Variable O&M Rate (VOMR)		
Forex	$/kWh	
Local	P/kWh	
Base Energy Rate (BER)		
Forex	$/kWh	
Local	P/kWh	1.5500
Service Fee Rate		
Forex	$/KW-mo	
Local	P/KW-mo	
Infrastructure Fee		
Forex	$/kW-mo	
Local	P/kW-mo	
Fuel Cost	$/kWh	
Type of Fuel		Geo. steam
Fuel Price	$/bbl/$/mT	
Fuel Heating Value	BTU/lb	
conversion rate		
Plant Heat Rate		0
Guaranteed	BTU/kWh	-
Net Plant Heat Rate	BTU/kWh	
Items to be Escalated		EF
Effective Date of Escalation		1-Jul-97

Escalation Formula

EF peso denominated $= 0.05 + (FX_1/FX_0) * [0.45 + 0.21 * (CE_1/CE_0) + 0.08 * (FCP_1/FCP_0) + 0.06 * (LCP_1/LCP_0) + 0.06 * (WPG_1/WPG_0) + 0.08 * (WPM_1/WPM_0)]$

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Mindanao (Mt Apo I) Geothermal Power Plant (With Steam Cost)
PNOC-EDC

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference			Annual Energy Generation			Capacity Payments		Operation and Maintenance Fee				Energy Fee		Service Fee		Infrastructure Fee		Fuel Cost		Total IPP Payments *	
No	Year		Theoretical	Available	MEOT	Forex $M	Local PM	Fixed		Variable		Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Peso PM Equivalent	Forex $M	Local PM
	Period Start	Period End	GWh	GWh	GWh			Forex $M	Local PM	Forex $M	Local PM										
1	Feb-97	Dec-97	411.72	377.99	330								559.4								559.4
2	Jan-98	Dec-98	411.72	377.99	320								553.2								553.2
3	Jan-99	Dec-99	411.72	377.88	320								547.5								547.5
4	Jan-00	Dec-00	411.72	377.88	320								547.5								547.5
5	Jan-01	Dec-01	411.72	377.88	320								547.5								547.5
6	Jan-02	Dec-02	411.72	377.88	320								547.5								547.5
7	Jan-03	Dec-03	411.72	377.88	320								547.5								547.5
8	Jan-04	Dec-04	411.72	377.88	320								547.5								547.5
9	Jan-05	Dec-05	411.72	377.88	320								547.5								547.5
10	Jan-06	Dec-06	411.72	377.88	320								547.5								547.5
11	Jan-07	Dec-07	411.72	377.88	320								547.5								547.5
12	Jan-08	Dec-08	411.72	377.88	320								547.5								547.5
13	Jan-09	Dec-09	411.72	377.88	320								547.5								547.5
14	Jan-10	Dec-10	411.72	377.88	320								547.5								547.5
15	Jan-11	Dec-11	411.72	377.88	320								547.5								547.5
16	Jan-12	Dec-12	411.72	377.88	320								547.5								547.5
17	Jan-13	Dec-13	411.72	377.88	320								547.5								547.5
18	Jan-14	Dec-14	411.72	377.88	320								547.5								547.5
19	Jan-15	Dec-15	411.72	377.88	320								547.5								547.5
20	Jan-16	Dec-16	411.72	377.88	320								547.5								547.5
21	Jan-17	Dec-17	411.72	377.88	320								547.5								547.5
22	Jan-18	Dec-18	411.72	377.88	320								547.5								547.5
23	Jan-19	Dec-19	411.72	377.88	320								547.5								547.5
24	Jan-20	Dec-20	411.72	377.88	320								547.5								547.5
25	Jan-21	Dec-21	411.72	377.88	320								547.5								547.5
26	Jan-22	Jan-22	411.72	377.88	320								547.5								547.5

* Includes Fuel

NPV 5,423.1

Assumptions

Cooperation Period	year	25
Date of Commercial Operation	year	Feb-97
Contracted Capacity	MW	47.00
Plant Factor	%	90%
MEOT	GWh	330 1st year
		320 2nd - 25th year
Allowable Outage Hours	hours/year	720
Available Energy	GWh	379

Rates

Contract Capacity Rate (CCR)		
Forex	$/kW-mo	
Local	P/kW-mo	
Fixed O&M Rate (FOMR)		
Forex	$/kW-mo	
Local	P/kW-mo	
Variable O&M Rate (VOMR)		
Forex	$/kWh	
Local	P/kWh	
Base Energy Rate (BER)		
Forex	$/kWh	
Local	P/kWh	1.5571
Service Fee Rate		
Forex	$/kW-mo	
Local	P/kW-mo	
Infrastructure Fee		
Forex	$/kW-mo	
Local	P/kW-mo	
Fuel Cost	$/kWh	
Type of Fuel		Geo steam
Fuel Price	$/tc/$m3	
Fuel Heating Value	BTU/tc	
Conversion rate		
Plant Heat Rate		
Guaranteed	BTU/kWh	#REF!
Net Plant Heat Rate	BTU/kWh	
Index to be Escalated		EF
Effective Date of Escalation		[illegible]-Jun-93

Escalation Formula

EF Peso Component = [illegible] (WPSt/WPSo) + [illegible] (WPMt/WPMo) + [illegible] (LCt/LCo)

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Leyte-Luzon Geothermal Power Plant (With Steam Cost)
PNOC-EDC

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference No	Year Period Start	Year Period End	Annual Energy Generation Contracted GWh	Annual Energy Generation Guaranteed GWh	Annual Energy Generation MEOT GWh	Capacity Payments Forex $M	Capacity Payments Local PM	O&M Fee Fixed Forex $M	O&M Fee Fixed Local PM	O&M Fee Variable Forex $M	O&M Fee Variable Local PM	Energy Fee Forex $M	Energy Fee Local PM	Service Fee Forex $M	Service Fee Local PM	Fuel Cost Forex $M	Fuel Cost Peso PM Equivalent	Total IPP Payments Forex $M	Total IPP Payments Local PM
1	Jul-98	Dec-98	1750		1575														
2	Jan-99	Dec-99	3000		2700								3047.23						3047.23
3	Jan-00	Dec-00	3000		2700								4844.43						4844.43
4	Jan-01	Dec-01	3000		2700								6720.16						6720.16
5	Jan-02	Dec-02	3000		2700								6720.16						6720.16
6	Jan-03	Dec-03	3000		2700								6720.16						6720.16
7	Jan-04	Dec-04	3000		2700								6720.16						6720.16
8	Jan-05	Dec-05	3000		2700								6720.16						6720.16
9	Jan-06	Dec-06	3000		2700								6720.16						6720.16
10	Jan-07	Dec-07	3000		2700								6720.16						6720.16
11	Jan-08	Dec-08	3000		2700								6720.16						6720.16
12	Jan-09	Dec-09	3000		2700								6720.16						6720.16
13	Jan-10	Dec-10	3000		2700								6720.16						6720.16
14	Jan-11	Dec-11	3000		2700								6720.16						6720.16
15	Jan-12	Dec-12	3000		2700								6720.16						6720.16
16	Jan-13	Dec-13	3000		2700								6720.16						6720.16
17	Jan-14	Dec-14	3000		2700								6720.16						6720.16
18	Jan-15	Dec-15	3000		2700								6720.16						6720.16
19	Jan-16	Dec-16	3000		2700								6720.16						6720.16
20	Jan-17	Dec-17	3000		2700								6720.16						6720.16
21	Jan-18	Dec-18	3000		2700								6720.16						6720.16
22	Jan-19	Dec-19	3000		2700								6720.16						6720.16
23	Jan-20	Dec-20	3000		2700								6720.16						6720.16
24	Jan-21	Dec-21	3000		2700								6720.16						6720.16
25	Jan-22	Dec-22	3000		2700								6720.16						6720.16
26	Jan-23	Jun-23	1250		1350								2800.06						2800.06

NPV 43 099

General Data

Cooperation Period	year	25	
Date of Commercial Operation	year	Jul-98	
Contracted Capacity	MW	440.00	not guaranteed
Plant Factor	%		
Contracted Annual Energy	GWh	3000	first year
			not lower than 90% for the 2nd - 25th year
MEOT	GWh		not lower than 90% of contracted annual energy
Allowable Downtime			not provided in the contract
Planned			PNOC-EDC to submit a written planned
Unplanned			preventive maintenance schedule of the power plant
			90 days prior to the start of each calendar days

Rates

Contract Capacity Rate (CCR)		
Forex	$/kW-mo	
Local	P/kW-mo	
Fixed O&M Rate (FOMR)		
Forex	$/kW-mo	
Local	P/kW-mo	
Variable O&M Rate (VOMR)		
Forex	$/kWh	
Local	P/kWh	
Base Energy Rate (BER)		
Forex	$/kWh	
Local	P/kWh	1.5520
Service Fee Rate		
Forex	$/kW-mo	
Local	P/kW-mo	
Infrastructure Fee		
Forex	$/kW-mo	
Local	P/kW-mo	
Fuel Cost	$/kWh	
Type of Fuel		geo steam
Fuel Price	$/[illegible]	
Fuel Heating Value	BTU/lb	
Conversion rate		
Plant Heat Rate		
Guaranteed	BTU/kWh	
Net Plant Heat Rate	BTU/kWh	
Items to be Escalated		E*
Effective Date of Escalation		Jun-93

Escalation Formula

E* Base Cost [illegible]

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Malaya I Thermal Power Plant
KEPCO

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference No.	Year Period Start	Period End	Annual Energy Generation Theoretical GWh	Available GWh	MEOT GWh	Capacity Payments Forex $M	Capacity Payments Local PM	O&M Fee Fixed Forex $M	O&M Fee Fixed Local PM	O&M Fee Variable Forex $M	O&M Fee Variable Local PM	Energy Fee Forex $M	Energy Fee Local PM	Service Fee Forex $M	Service Fee Local PM	Infrastructure Fee Forex $M	Infrastructure Fee Local PM	Total IPP Payments Forex $M	Total IPP Payments Local PM	Fuel Cost Forex $M	Fuel Cost Peso PM Equivalent	Total Costs Forex $M	Total Costs Local PM
1	Jun-95	Dec-95	1379.7	854.0	597.8				271.11			7.86						7.86	271.11	23.34	600.25	31.20	271.11
2	Jan-96	Dec-96	2365.2	1464.0	1024.8				484.28			13.47						13.47	484.28	40.02	1049.07	53.49	484.28
3	Jan-97	Dec-97	2365.2	1464.0	1024.8				521.23			13.47						13.47	521.23	40.02	1179.32	53.49	521.23
4	Jan-98	Dec-98	2365.2	1464.0	1024.8				637.69			13.47						13.47	637.69	40.02	1836.41	53.49	637.69
5	Jan-99	Dec-99	2365.2	1848.3	1293.8				628.23			17.00						17.00	628.23	50.52	2020.85	67.53	628.23
6	Jan-00	Dec-00	2365.2	2122.6	1486.0				616.88			19.53						19.53	616.88	58.02	2250.19	77.55	616.88
7	Jan-01	Dec-01	2365.2	2122.6	1486.0				616.88			19.53						19.53	616.88	58.02	2250.19	77.55	616.88
8	Jan-02	Dec-02	2365.2	2122.6	1486.0				616.88			19.53						19.53	616.88	58.02	2250.19	77.55	616.88
9	Jan-03	Dec-03	2365.2	2122.6	1486.0				616.88			19.53						19.53	616.88	58.02	2250.19	77.55	616.88
10	Jan-04	Dec-04	2365.2	2122.6	1486.0				616.88			19.53						19.53	616.88	58.02	2250.19	77.55	616.88
11	Jan-05	Dec-05	2365.2	2122.6	1486.0				616.88			19.53						19.53	616.88	58.02	2250.19	77.55	616.88
12	Jan-06	Dec-06	2365.2	2122.6	1486.0				616.88			19.53						19.53	616.88	58.02	2250.19	77.55	616.88
13	Jan-07	Dec-07	2365.2	2122.6	1486.0				616.88			19.53						19.53	616.88	58.02	2250.19	77.55	616.88
14	Jan-08	Dec-08	2365.2	2122.6	1486.0				616.88			19.53						19.53	616.88	58.02	2250.19	77.55	616.88
15	Jan-09	Dec-09	2365.2	2122.6	1486.0				616.88			19.53						19.53	616.88	58.02	2250.19	77.55	616.88
16	Jan-10	May-10	985.5	884.5	619.2				257.03			8.14						8.14	257.03	24.18	937.58	32.31	257.03
																NPV		134.5	3,151.2			534.3	3,151.2

Assumptions:		Malaya I	Malaya II		Malaya 1 1999 Fuel	Malaya 2 1999 Fuel
Cooperation Period	year	15	15			
Date of Commercial Operation	year	Jun-95	Jun-95			
Contracted Capacity	MW	300.0	350.0			
Dependable Capacity	MW	200.0	260.0	(1-4 years)		
	MW	290.0	340.0	(5-15 years)		
Plant Factor	%	90%	90%			
Allowable Downtime	hrs/unit/yr	1440.0	1440.0			
Planned	days/unit/yr	60.0	60.0			
Unplanned						
Available Energy	GWh	2,122.6	2,488.8			
Rates						
Contract Capacity Rate (CCR)						
Forex	$/kW-mo.					
Local	P/kW-mo.					
Fixed O&M Rate (FOMR)						
Forex	$/kWh-mo.			(1-4 years assessment and rehabilitation)		
Local	P/kWh-mo	0.1965	0.1800	(1-4 years assessment and rehabilitation)		
Forex	$/kWh-mo.			(5-15 years Operation and Maintenance)		
Local	P/kWh-mo.	0.1965	0.1800	(5-15 years Operation and Maintenance)		
Variable O&M Rate (VOMR)						
Forex	$/kWh					
Local	P/kWh					
Base Energy Rate (BER)						
Forex	$/kWh	0.0092	0.0078	(1-4 years assessment and rehabilitation)		
Local	P/kWh			(1-4 years assessment and rehabilitation)		
Forex	$/kWh	0.0092	0.0078	(5-15 years Operation and Maintenance)		
Local	P/kWh			(5-15 years Operation and Maintenance)		
Service Fee Rate						
Forex	$/kW-mo					
Local	P/kW-mo					
Infrastructure Fee						
Forex	$/kW-mo					
Local	P/kW-mo					
Fuel Cost	$/kwh	0.0266	0.0256		0.0273	0.0263
Type of Fuel		Bunker C	Bunker C		Bunker C	Bunker C
Fuel Price	$/bbl/$/mT	17.7	17.7	(MOPS) Janua	18.0998	18.0998
Fuel Heating Value	mmBTU/bbl	19000	19000		19000	19000
conversion		6.2614	6.2614		6.2614	6.2614
Plant Heat Rate		10050	9687		10100	9716
Guaranteed *	BTU/kWh	see down				
Net Plant Heat Rate	BTU/kWh					
Items to be Escalated		OM	OM			
Effective Date of Escalation		17-May-95				
Escalation Formula	PO1/POo * (0.25 * IG1/IGo + 0.25 * CP1/CPo) + 0.25 * WP1/WPo + 0.25 * RP1/RPo					

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Malaya II Thermal Power Plant
KEPCO

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference No.	Year Period Start	Period End	Annual Energy Generation Theoretical GWh	Available GWh	MEOT GWh	Capacity Payments Forex $M	Local PM	Operation and Maintenance Fee Fixed Forex $M	Fixed Local PM	Variable Forex $M	Variable Local PM	Energy Fee Forex $M	Local PM	Service Fee Forex $M	Local PM	Infrastructure Fee Forex $M	Local PM	Total IPP Payments Forex $M	Local PM	Fuel Cost Forex $M	Peso PM Equivalent	Total Costs Forex $M	Local PM
1	Jun-95	Dec-95	1609.7	1110.2	777.1				289.74			12.56						12.56	289.74	29.19	750.65	41.75	289.74
2	Jan-96	Dec-96	2759.4	1903.2	1332.2				517.55			21.52						21.52	517.55	50.04	1311.94	71.57	517.55
3	Jan-97	Dec-97	2759.4	1903.2	1332.2				557.04			21.52						21.52	557.04	50.04	1474.83	71.57	557.04
4	Jan-98	Dec-98	2759.4	1903.2	1332.2				681.50			21.52						21.52	681.50	50.04	2046.45	71.57	681.50
5	Jan-99	Dec-99	2759.4	2244.8	1571.4				671.39			21.52						21.52	671.39	59.03	2381.05	80.55	671.39
6	Jan-00	Dec-00	2759.4	2488.8	1742.2				659.26			21.52						21.52	659.26	65.44	2537.85	86.97	659.26
7	Jan-01	Dec-01	2759.4	2488.8	1742.2				659.26			21.52						21.52	659.26	65.44	2537.85	86.97	659.26
8	Jan-02	Dec-02	2759.4	2488.8	1742.2				659.26			21.52						21.52	659.26	65.44	2537.85	86.97	659.26
9	Jan-03	Dec-03	2759.4	2488.8	1742.2				659.26			21.52						21.52	659.26	65.44	2537.85	86.97	659.26
10	Jan-04	Dec-04	2759.4	2488.8	1742.2				659.26			21.52						21.52	659.26	65.44	2537.85	86.97	659.26
11	Jan-05	Dec-05	2759.4	2488.8	1742.2				659.26			21.52						21.52	659.26	65.44	2537.85	86.97	659.26
12	Jan-06	Dec-06	2759.4	2488.8	1742.2				659.26			21.52						21.52	659.26	65.44	2537.85	86.97	659.26
13	Jan-07	Dec-07	2759.4	2488.8	1742.2				659.26			21.52						21.52	659.26	65.44	2537.85	86.97	659.26
14	Jan-08	Dec-08	2759.4	2488.8	1742.2				659.26			21.52						21.52	659.26	65.44	2537.85	86.97	659.26
15	Jan-09	Dec-09	2759.4	2488.8	1742.2				659.26			21.52						21.52	659.26	65.44	2537.85	86.97	659.26
16	Jan-10	May-10	1149.8	1037.0	725.9				274.69			8.97						8.97	274.69	27.27	1057.44	36.24	274.69
																	NPV	148.3	3,367.7			599.1	3,367.7

Assumptions:		Malaya I	Malaya II		Malaya 1	Malaya 2
Cooperation Period	year	15	15			
Date of Commercial Operation	year	Jun-95	Jun-95			
Contracted Capacity	MW	300.0	350.0			
Dependable Capacity	MW	200.0	260.0	(1-4 years)		
	MW	290.0	340.0	(5-15 years)		
Plant Factor	%	90%	90%			
Allowable Downtime	hrs/unit/yr	1440.0	1440.0			
Planned	days/unit/yr	60.0	60.0			
Unplanned						
Available Energy	GWh	2,122.8	2,488.8			
Rates						
Contract Capacity Rate (CCR)						
Forex	$/kW-mo.					
Local	P/kW-mo.					
Fixed O&M Rate (FOMR)						
Forex	$/kWh-mo.			(1-4 years assessment and rehabilitation)		
Local	P/kWh-mo.	0.1965	0.1800	(1-4 years assessment and rehabilitation)		
Forex	$/kWh-mo.			(5-15 years Operation and Maintenance)		
Local	P/kWh-mo.	0.1965	0.1800	(5-15 years Operation and Maintenance)		
Variable O&M Rate (VOMR)						
Forex	$/kWh					
Local	P/kWh					
Base Energy Rate (BER)						
Forex	$/kWh	0.0092	0.0078	(1-4 years assessment and rehabilitation)		
Local	P/kWh			(1-4 years assessment and rehabilitation)		
Forex	$/kWh	0.0092	0.0078	(5-15 years Operation and Maintenance)		
Local	P/kWh			(5-15 years Operation and Maintenance)		
Service Fee Rate						
Forex	$/kW-mo					
Local	P/kW-mo					
Infrastructure Fee						
Forex	$/kW-mo					
Local	P/kW-mo				1999 Fuel	1999 Fuel
Fuel Cost	$/kwh	0.0268	0.0256		0.0273	0.0263
Type of Fuel		Bunker C	Bunker C		Bunker C	Bunker C
Fuel Price	$/bbl/$/mT	17.7	17.7	(MOPS) J	18.0998	18.0998
Fuel Heating Value	mmBTU/bb	19000	19000		19000	19000
conversion		6.2514	6.2614		6.2614	6.2614
Plant Heat Rate		10050	9687		10100	9716
Guaranteed	BTU/kWh	see down				
Net Plant Heat Rate	BTU/kWh					
Items to be Escalated		CM	OM			
Effective Date of Escalation		5/17/1995				
Escalation Formula	PO1/POo * (0.25 * IG1/IGo + 0.25 * CP1/CPo) + 0.25 * WP1/WPo + 0.25 * RP1/RPo					

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MINDANAO COAL PLANT (BOT)
PROPONENT : STATE INVESTMENT/HARBIN
PHIVIDEC, MISAMIS ORIENTAL
Contract Includes fuel

General Data:

Cooperation Period			
Duration yr	25		
Target/Actual Start Date	1-Jan-06		
Target/Actual Completion Date	31-Dec-30		
Contracted C MW	200		
No. of Units	2		
Allowable Downtime	65		
Planned Ou no. of days/unit	20		
Unplanned total	45		
Generation Sale Price			
Rates:			
Capital Recov cost/kW-mo	$		PHP
Power Plant		6.37920	13.30130
Flue Gas Desulfurizer		1.73333	1.08330
Service Fee cost/kW-mo		4.64170	7.58333
Infrastructure cost/kW-mo		0.20830	0.92080
Total Capacit cost/kW-mo		12.96253	22.88873
Fixed Operati cost/kW-mo			
Power Plant		1.91667	38.56667
Flue Gas Desulfurizer		0.63333	20.15000
Total		2.55000	58.71667
Transmission cost/kW-mo		0.20830	0.92080
Energy Fee With fuel rate adjustments based on % change in Japanese/Australian Steam Coal Benchmark			
Variable cost/kWh		0.00780	0.01090
Base Cos cost/kWh			
yr 1 to 5		0.0153	
yr 6 to 10		0.0169	
yr 11 to 15		0.0187	
yr 16 to 20		0.0206	
yr 21 to 25		0.0274	
Exchange Rate PHP/$			40.00

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YEAR	Period Start to Period End	No. of days per year	Plant Available Energy (GWh)	Capacity Fee ($ M)	Capacity Fee (PHP M)	Operating Fee ($ M)	Operating Fee (PHP M)	Variable Energy Fee ($ M)	Variable Energy Fee (PHP M)	Fuel Energy Fee ($ M)	Transmission Line Fee ($ M)	Transmission Line Fee (PHP M)	Total IPP Payments ($ M)	Total IPP Payments (PHP M)
2006	01 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	22.032	0.49992	2.20992	61.28	147.24
2007	2 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	22.032	0.49992	2.20992	61.28	147.24
2008	3 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	22.032	0.49992	2.20992	61.28	147.24
2009	4 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	22.032	0.49992	2.20992	61.28	147.24
2010	5 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	22.032	0.49992	2.20992	61.28	147.24
2011	6 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	24.336	0.49992	2.20992	63.59	147.24
2012	7 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	24.336	0.49992	2.20992	63.59	147.24
2013	8 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	24.336	0.49992	2.20992	63.59	147.24
2014	9 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	24.336	0.49992	2.20992	63.59	147.24
2015	10 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	24.336	0.49992	2.20992	63.59	147.24
2016	11 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	26.928	0.49992	2.20992	66.18	147.24
2017	12 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	26.928	0.49992	2.20992	66.18	147.24
2018	13 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	26.928	0.49992	2.20992	66.18	147.24
2019	14 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	26.928	0.49992	2.20992	66.18	147.24
2020	15 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	26.928	0.49992	2.20992	66.18	147.24
2021	16 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	29.664	0.49992	2.20992	68.92	147.24
2022	17 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	29.664	0.49992	2.20992	68.92	147.24
2023	18 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	29.664	0.49992	2.20992	68.92	147.24
2024	19 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	29.664	0.49992	2.20992	68.92	147.24
2025	20 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	29.664	0.49992	2.20992	68.92	147.24
2026	21 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	39.456	0.49992	2.20992	78.71	147.24
2027	22 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	39.456	0.49992	2.20992	78.71	147.24
2028	23 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	39.456	0.49992	2.20992	78.71	147.24
2029	24 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	39.456	0.49992	2.20992	78.71	147.24
2030	25 Jan. - 31 Dec.	365	1440	23.00	40.61	4.52	104.17	11.232	0.251	39.456	0.49992	2.20992	78.71	147.24

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CALIRAYA-BOTOCAN-KALAYAAN (CBK) BROT PROJECT
PROPONENT : IMPSA
CALIRAYA, LAGUNA

General Data:

Cooperation Period
Duration yr 25
Target/Actual Start Date 1-Jan-04
Target/Actual Completion Date 31-Dec-28

	MW	No. of Units	Total Capacity,	Scope of Works
Contracted Capacity			753.12	
Caliraya	11.75	2	23.5	Rehabilitation
Botocan	10.36	2	20.72	Rehabilitation
	0.9	1	0.9	
Kalayaan I	177	2	354	Rehabilitation
Kalayaan II	177	2	354	New

Allowable Downtime	no. of hours/unit	Caliraya	Botocan	Kalayaan I	Kalayaan II
Planned Outage					
Years 1				360	
Years 2		360	300	360	
Years 3		360	360	360	
Year 4		360	360	180	360
Year 5-25		360	360	360	360
Unplanned Outage					
Years 1				350	
Years 2		175	116	350	
Years 3		175	175	350	
Year 4		175	175	87	175
Year 5-25		175	175	175	175

Generation Sale Price

Rates:

		$	PHP
Capital Recovery Fee	cost/kW-mo		
Years 1-9		11.870	
Years 10-25		4.330	
Fixed Operating Fee	cost/kW-mo		26

O&M Fee Adjusted for currency and inflation fluctuations
Escalation Formula (PDE1/PDEO)*(UPP1/UPPO), where PDEO= 26 PHP to 1 US $
UPPO = US Producer's Price Index as of 28 November 1996

Exchange Rate PHP/$ 40.00

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YEAR	Period Start to Period End	No. of days per year	No. of hours per year	Annual Average Contracted Energy (GWh)	Annual Average Available Energy (GWh)	Capacity Fee ($ M)	Capacity Fee (PHP M)	Operating Fee ($ M)	Operating Fee (PHP M)		Total IPP Payments ($ M)	Total IPP Payments (PHP M)
2004	01 Jan. - 31 Dec.	365		2,628.00	805.00	42.73			136.96		42.73	136.96
2005	2 Jan. - 31 Dec.	365		3,023.25	1,178.68	49.16			157.56		49.16	157.56
2006	3 Jan. - 31 Dec.	365		3,023.25	1,176.11	49.16			157.56		49.16	157.56
2007	4 Jan - 31 Dec.	365		6,124.29	2,190.98	99.58			319.17		99.58	319.17
2008	5 Jan. - 31 Dec.	365		6,124.29	2,164.16	99.58			319.17		99.58	319.17
2009	6 Jan. - 31 Dec.	365		6,124.29	2,184.16	99.58			319.17		99.58	319.17
2010	7 Jan. - 31 Dec.	365		6,124.29	2,164.16	99.58			319.17		99.58	319.17
2011	8 Jan. - 31 Dec.	365		6,124.29	2,164.16	99.58			319.17		99.58	319.17
2012	9 Jan. - 31 Dec.	365		6,124.29	2,164.16	99.58			319.17		99.53	319.17
2013	10 Jan. - 31 Dec.	365		6,124.29	2,164.16	36.33			319.17		99.58	319.17
2014	11 Jan. - 31 Dec.	365		6,124.29	2,164.16	36.33			319.17		36.33	319.17
2015	12 Jan. - 31 Dec.	365		6,124.29	2,184.16	36.33			319.17		36.33	319.17
2016	13 Jan. - 31 Dec.	365		6,124.29	2,164.16	36.33			319.17		36.33	319.17
2017	14 Jan. - 31 Dec.	365		6,124.29	2,164.16	36.33			319.17		36.33	319.17
2018	15 Jan - 31 Dec	365		6,124.29	2,164.16	36.33			319.17		36.33	319.17
2019	16 Jan. - 31 Dec.	365		6,124.29	2,184.16	36.33			319.17		36.33	319.17
2020	17 Jan - 31 Dec.	365		6,124.29	2,164.16	36.33			319.17		36.33	319.17
2021	18 Jan - 31 Dec.	365		6,124.29	2,164.16	36.33			319.17		36.33	319.17
2022	19 Jan. - 31 Dec.	365		6,124.29	2,184.16	36.33			319.17		36.33	319.17
2023	20 Jan. - 31 Dec.	365		6,124.29	2,164.16	36.33			319.17		36.33	319.17
2024	21 Jan - 31 Dec.	365		6,124.29	2,184.16	36.33			319.17		36.33	319.17
2025	22 Jan. - 31 Dec	365		6,124.29	2,184.16	36.33			319.17		36.33	319.17
2026	23 Jan - 31 Dec.	365		6,124.29	2,164.16	36.33			319.17		36.33	319.17
2027	24 Jan. - 31 Dec.	365		6,124.29	2,164.16	36.33			319.17		36.33	319.17
2028	25 Jan - 31 Dec	365		6,124.29	2,164.16	36.33			319.17		36.33	319.17
											647.03	1,676.27

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SAN PASCUAL CO-GENERATION PLANT (BOO)
PROPONENT : SAN PASCUAL CO-GENERATION COMPANY (SPCC)
SAN PASCUAL, BATANGAS

General Data:

Cooperation Period		
Duration	yr	25
Target/Actual Start Date		1-Jan-04
Target/Actual Completion Date		31-Dec-28
Contracted Capacity	MW	304
No. of Units		2
Allowable Downtime	GWh/year	399.455
Planned Outage		319.564
Unplanned Outage	total	79.891
Generation Sale Price		

Rates:		$	PHP	
Capital Recovery Fee	cost/kW-mo			
yrs 1-7		20.500		
yr 8		16.000		
yr 9		13 000		
yr 10		11.550		
yr 11		10.500		
yr 12		10.000		
yr 13-25		4.000		
Fixed Operating Fee	cost/kW-mo	1.0034	58.4782	Base Cost at January 1, 1994
Energy Fee				
Variable Cost	cost/kWh	0.00550	0.04020	Base Cost at January 1, 1994
Exchange Rate	PHP/$		40.00	

Adjustments for escalation will be made for O & M and Energy Fee Rates based on US Price Index

YEAR	Period Start to Period End	No. of days per year	Annual Average		Capacity Fee		Operating Fee		Energy Fee			Total IPP Payments	
			Contracted Energy (GWh)	Available Energy (GWh)	($ M)	(PHP M)	($ M)	(PHP M)	($ M)	(PHP M)		($ M)	(PHP M)
2004	01 Jan - 31 Dec.	365	2663.04	2263.585	74.78		3.88	218.41	13.20	3 078		91.86	221.48
2005	2 Jan. - 31 Dec.	365	2663.04	2263.585	74.78		3.88	218.41	13.20	3 078		91.86	221.48
2006	3 Jan. - 31 Dec.	365	2663.04	2263.585	74.78		3.88	218.41	13.20	3.078		91 86	221.48
2007	4 Jan. - 31 Dec.	365	2663.04	2263.585	74.78		3.88	218.41	13.20	3.078		91.86	221.48
2008	5 Jan. - 31 Dec.	365	2663.04	2263.585	74.78		3.88	218.41	13 20	3.078		91.86	221.48
2009	6 Jan. - 31 Dec.	365	2663.04	2263.585	74.78		3.88	218.41	13.20	3 078		91.86	221.48
2010	7 Jan - 31 Dec.	365	2663.04	2263.585	74.78		3.89	218.41	13.20	3 078		91 86	221.48
2011	8 Jan. - 31 Dec.	365	2663.04	2263 585	58.37		3.88	218.41	13.20	2.402		75.44	220 81
2012	9 Jan - 31 Dec.	365	2663.04	2263 585	47 42		3.88	218.41	13.20	1 952		64.50	220.36
2013	10 Jan. - 31 Dec.	365	2663.04	2263 585	42.13		3.88	218.41	13.20	1 734		59.21	220.14
2014	11 Jan - 31 Dec.	365	2663.04	2263.585	38 30		3.88	218.41	13.20	1 576		55.38	219.98
2015	12 Jan - 31 Dec.	365	2663.04	2263.585	36 48		3.88	218.41	13 20	1 501		53 56	219 91
2016	13 Jan - 31 Dec.	365	2663 04	2263 585	14.59		3.88	218.41	13 20	0 601		31 67	219 01
2017	14 Jan - 31 Dec.	365	2663 04	2263 585	14 59		3.88	218.41	13 20	0 601		31 67	219.01
2018	15 Jan - 31 Dec.	365	2663.04	2263.585	14 59		3.88	218.41	13 20	0 601		31 67	219 01
2019	16 Jan - 31 Dec.	365	2663.04	2263 585	14 59		3.88	218.41	13 20	0 601		31 67	219.01
2020	17 Jan - 31 Dec.	365	2663.04	2263.585	14 59		3.88	218.41	13 20	0 601		31 67	219 01
2021	18 Jan - 31 Dec.	365	2663.04	2263.585	14.59		3.88	218.41	13 20	0 601		31 67	219.01
2022	19 Jan - 31 Dec	365	2663 04	2263 585	14 59		3.88	218.41	13 20	0 601		31 67	219.01
2023	20 Jan - 31 Dec.	365	2663 04	2263.585	14 59		3.88	218 41	13 20	0 601		31 67	219.01
2024	21 Jan - 31 Dec.	365	2663 04	2263.535	14.59		3.88	218.41	13 20	0 601		31.67	219.01
2025	22 Jan - 31 Dec.	365	2663 04	2263.585	14 59		3 88	218.41	13.20	0 601		31 67	219 01
2026	23 Jan - 31 Dec	365	2663 04	2263 585	14 59		3 88	218.41	13.20	0 601		31 67	219.01
2027	24 Jan - 31 Dec	365	2663 04	2263.585	14 59		3.88	218.41	13 20	0 601		31 67	219.01
2028	25 Jan - 31 Dec.	365	2663.04	2263 585	14 59		3.88	218.41	13 20	0 601		31 67	219.01

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SAN ROQUE MULTI PURPOSE PROJECT
PROPONENT : MARUBENI CORPORATION
: SITHE ENERGY

General Data:

Cooperation Period Duration	yr		25	
Target/Actual Start Date	January 2005			
Target/Actual Completion Date	December 2029			
Contracted Capacity	MW		345	
Dependable Capacity	MW		85	
Allowable Downtime	days/Contract Year		15	

Generation Sale Price

Rates:					
Capacity Fee	cost/kW-mo	yen		$	PHP
Contract Year 1 to Contract Year 12				59.66	
			5097	48.54	
Contract Year 12 to Contract Year 20				20.50	
Contract Year 21 to Contract Year 25				20.50	
Fixed Operating Fee	cost/kW-mo				250,000
Energy Fee	cost/kWh				
Contract Year 1 to Contract Year 12				0.027	
Contract Year 12 to Contract Year 20				0.006	
Contract Year 21 to Contract Year 25				0.0027	
Exchange Rate	PHP/$			40	
	yen/$			105	

YEAR	Period Start to Period End	No. of month per year	Contracted Capacity(MW)	Excess Energy (GWh)	Capacity Fee ($ M)	Capacity Fee (PHP M)	Operating Fee ($ M)	Operating Fee (PHP M)	Energy Fee ($ M)	Energy Fee (PHP M)	Total Fee Payments ($ M)	Total Fee Payments (PHP M)
2005	01 Jan. - 31 Dec.	12	215	1,138.80	279.16		-	645.00	30.75		309.91	645
2006	01 Jan. - 31 Dec.	12	215	1,138.80	279.16		-	645.00	30.75		309.91	645
2007	01 Jan. - 31 Dec.	12	215	1,138.80	279.16		-	645.00	30.75		309.91	645
2008	01 Jan. - 31 Dec.	12	215	1,138.80	279.16		-	645.00	30.75		309.91	645
2009	01 Jan. - 31 Dec.	12	215	1,138.80	279.16		-	645.00	30.75		309.91	645
2010	01 Jan. - 31 Dec.	12	215	1,138.80	279.16		-	645.00	30.75		309.91	645
2011	01 Jan. - 31 Dec.	12	215	1,138.80	279.16		-	645.00	30.75		309.91	645
2012	01 Jan. - 31 Dec.	12	215	1,138.80	279.16		-	645.00	30.75		309.91	645
2013	01 Jan. - 31 Dec.	12	215	1,138.80	279.16		-	645.00	30.75		309.91	645
2014	01 Jan. - 31 Dec.	12	215	1,138.80	279.16		-	645.00	30.75		309.91	645
2015	01 Jan. - 31 Dec.	12	215	1,138.80	279.16		-	645.00	30.75		309.91	645
2016	01 Jan. - 31 Dec.	12	215	1,138.80	279.16		-	645.00	30.75		309.91	645
2017	01 Jan. - 31 Dec.	12	215	1,138.80	52.89		-	645.00	6.83		59.72	645
2018	01 Jan. - 31 Dec	12	215	1,138.80	52.89		-	645.00	6.83		59.72	645
2019	01 Jan. - 31 Dec.	12	215	1,138.80	52.89		-	645.00	6.83		59.72	645
2020	01 Jan. - 31 Dec.	12	215	1,138.80	52.89		-	645.00	6.83		59.72	645
2021	01 Jan. - 31 Dec.	12	215	1,138.80	52.89		-	645.00	6.83		59.72	645
2022	01 Jan. - 31 Dec.	12	215	1,138.80	52.89		-	645.00	6.83		59.72	645
2023	01 Jan. - 31 Dec.	12	215	1,138.80	52.89		-	645.00	6.83		59.72	645
2024	01 Jan. - 31 Dec	12	215	1,138.80	52.89		-	645.00	6.83		59.72	645
2025	01 Jan. - 31 Dec.	12	215	1,138.80	52.89		-	645.00	6.83		59.72	645
2026	01 Jan. - 31 Dec.	12	215	1,138.80	52.89		-	645.00	3.07		55.96	645
2027	01 Jan. - 31 Dec.	12	215	1,138.80	52.89		-	645.00	3.07		55.96	645
2028	01 Jan. - 31 Dec.	12	215	1,138.80	52.89		-	645.00	3.07		55.96	645
2029	01 Jan. - 31 Dec.	12	215	1,138.80	52.89		-	645.00	3.07		55.96	645
											2,519.75	4,169.38

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ILIJAN NATURAL GAS PLANT (BOT)
PROPONENT : KOREAN ELECTRIC CO. PHIL. (KEILCO)
ILIJAN, BATANGAS

General Data:

Cooperation Period		
Duration	yr	20
Target/Actual Start Date		1-Jul-02
Target/Actual End Date		30-Jun-21
Contracted Capacity	MW	1200
No. of Units		2 Blocks
Allowable Downtime		55
Planned Outage	no. of days/unit	30
Unplanned Outage	no. of days/unit	25
Generation Sale Price		

Rates:		$	PHP
Contract Capacity Fee	cost/kW-mo	7.25378	
T/L Infrastructure Fee	cost/kW-mo	1.99027	
P/L Infrastructure Fee	cost/kW-mo	0.74000	
Fixed Operating Fee	cost/kW-mo	0.78112	7.25
Energy Fee	cost/kWh	0.00013	0.0012
Guaranteed Heat Rate, Kcal/kWh			
Tested Unit Heat Rate @ Net Contracted Capacity			

Fees Escalation Provision : To be applied to Energy Fee and Fixed Operating Fee every six months per year

Fixed Operating Fee
- Dollar denominated fees = 0.50*(CE1/CEo) + 0.50*(CP1/CPo)
- Peso denominated fees = 0.20*(LCP1/LCPo) + 0.80*(WPC1/WPCo)

Energy Fee
- Dollar denominated fees = 0.50*(CE1/CEo) + 0.50*(CP1/CPo)
- Peso denominated fees = 0.15*(LCP1/LCPo) + 0.85*(WPC1/WPCo)

Exchange Rate PHP/$ 40.00

YEAR	Period Start to Period End	No. of day per year	Plant Avail Energy (GWh)	Capacity Fee ($ M)	Capacity Fee (PHP M)	Operating Fee ($ M)	Operating Fee (PHP M)	Energy Fee ($ M)	Energy Fee (PHP M)	Infra. Fee T/L ($ M)	Infra. Fee P/L ($ M)	Total IPP Payments ($ M)	Total IPP Payments (PHP M)	Fuel Payments	Total Costs ($ M)	Total Costs (PHP M)
2000																
2001																
2002	1 Jul. - 31 Dec.	184	5299.2	52.23	-	6.98	60.20	0.87790	7.25622			60.089	67.459	142.40	342.56	67.46
2003	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	288.62	408.76	134.80
2004	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	284.63	404.99	134.80
2005	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	290.35	411.01	134.80
2006	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	297.38	417.54	134.80
2007	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	304.03	424.19	134.80
2008	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	330.40	450.56	134.80
2009	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	340.83	460.99	134.80
2010	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	342.95	463.11	134.80
2011	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	349.04	469.20	134.80
2012	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	351.82	471.98	134.80
2013	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	362.81	482.97	134.80
2014	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	358.42	478.58	134.80
2015	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	370.82	490.98	134.80
2016	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	372.83	492.99	134.80
2017	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	380.12	500.23	134.80
2018	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	381.63	501.79	134.80
2019	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	393.97	514.13	134.80
2020	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	401.16	521.32	134.80
2021	1 Jan. - 31 Dec.	365	10512	104.45	-	13.97	120.41	1.74149	14.39414			120.163	134.800	411.16	531.32	134.80
2022	1 Jan. - 30 Jun.	181	5212.8	52.23	-	13.97	60.20	0.88359	7.13792			67.058	67.341	203.89	479.22	67.34
									NPV (8%$, 15%php)			1,137.47	788.78	3,123.22	4,436.57	788.78

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Naga Thermal Plant Complex
LBGT
Salcon Power Corp.

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference No.	Year Period Start	Year Period End	Annual Energy Generation Available GWh	Annual Energy Generation Guaranteed GWh	Annual Energy Generation MEOT GWh	Capacity Payments Forex $M	Capacity Payments Local PM	O&M Fee Asset & Rehab Forex $M	O&M Fee Asset & Rehab Local PM	O&M Fee O&M Forex $M	O&M Fee O&M Local PM
1	Jun-94	Dec-94	112.42	140.53	42.15				34.288		
2	Jan-95	Dec-95	192.72	240.90	72.27				50.125		
3	Jan-96	Dec-96	192.72	240.90	72.27				52.595		
4	Jan-97	Dec-97	192.72	240.90	72.27				57.541		
5	Jan-98	Dec-98	192.72	240.90	72.27						81.264
6	Jan-99	Dec-99	192.72	240.90	72.27						81.293
7	Jan-00	Dec-00	192.72	240.90	72.27						81.920
8	Jan-01	Dec-01	192.72	240.90	72.27						81.920
9	Jan-02	Dec-02	192.72	240.90	72.27						81.930
10	Jan-03	Dec-03	192.72	240.90	72.27						81.630
11	Jan-04	Dec-04	192.72	240.90	72.27						81.390
12	Jan-05	Dec-05	192.72	240.90	72.27						81.930
13	Jan-06	Dec-06	192.72	240.90	72.27						81.590
14	Jan-07	Dec-07	192.72	240.90	72.27						81.220
15	Jan-08	Dec-08	192.72	240.90	72.27						81.220
16	Jan-09	May-09	79.30	103.18	30.11						34.165

Reference No.	Energy Fee Forex $M	Energy Fee Local PM	Energy Fee Forex $M	Energy Fee Local PM	Service Fee Forex $M	Service Fee Local PM	Infrastructure Fee Forex $M	Infrastructure Fee Local PM	Total IPP Payments Forex $M	Total IPP Payments Local PM	Fuel Cost Forex $M	Fuel Cost Peso PM Equivalent	Total Costs Forex $M	Total Costs Local PM
1	7.55								7.55	175.71	5.30	142.42	12.95	175.71
2	12.95								12.95	237.78	9.24	237.95	22.20	237.78
3	12.95								12.95	304.95	9.24	243.22	22.20	304.95
4	12.95								12.95	332.21	9.24	272.37	22.20	332.21
5			3.16						3.16	451.20	9.24	377.54	12.40	451.20
6			3.16						3.16	451.48	9.24	350.53	12.40	451.48
7			3.19						3.16	451.53	9.24	343.93	12.40	451.68
8			3.19						3.19	451.38	9.24	348.62	12.40	451.69
9			3.19						3.19	451.96	9.24	349.66	12.40	451.62
10			3.19						3.19	451.86	9.24	349.69	12.40	451.98
11			3.19						3.19	451.66	9.24	349.69	12.40	451.66
12			3.19						3.16	451.68	9.24	349.60	12.40	451.66
13			3.19						3.16	451.67	9.24	349.69	12.40	451.68
14			3.19						3.16	451.67	9.24	349.83	12.40	451.68
15			3.19						3.18	451.58	9.24	343.83	12.40	451.58
16			3.21						1.21	186.20	3.65	144.63	5.11	129.23
							NPV		20.32	2201.73			72.94	2201.73

General Data

Cooperation Period	year	15						
Date of Commercial Operation	year	31-May-94						
Contracted Capacity	MW							
			CTPP1	CTPP2	CDPP	LBGT		
Guaranteed Capacity	MW		50	55.5	43.8	55		
Guaranteed Energy	GWH		350	358	288	241		
Minimum Offtake	GWH		307	348	252	72		
Guaranteed Plant Factor	%		80%	90%	75%	50%		
Minimum Offtake Plant Factor	%		70%	70%	70%	15%	1,752.0	
Outage Allowance			1,752.0	hrs	2,190.0	73.00	days + inspection allowance	
Available Energy	GWh		280.32	315.44	315.32	192.72		
			CTPP1&2		CDPP		LBGT	
			Ass & Rehab Period	O&M Period	Ass & Rehab Period	O&M Period	Ass & Rehab Period	O&M Period
Contract Capacity Rate (CCR)								
Forex	$/kW-mo							
Local	P/kW-mo							
Fixed O&M Rate (FOMR)								
Forex	$/kWh-mo							
Local	P/kWh-mo		0.252	0.242	0.252	0.242	0.244	0.244
Variable O&M Rate (VOMR)								
Forex	$/kWh							
Local	P/kWh							
Base Energy Rate (BER)								
Forex	$/kWh		0.00895	0.015	0.0095	0.0123	0.0538	0.0131
Local	P/kWh							
Service Fee Rate								
Forex	$/kW-mo	0						
Local	P/kW-mo	0						
Infrastructure Fee								
Forex	$/kW-mo	0						
Local	P/kW-mo	0						

								1993 Fuel					
Fuel Cost	$/kWh	0.0233	0.0425	0.0301	0.0292	0.0480	0.0454	0.0319	0.0308	0.0383	0.0493	0.0577	
Type of Fuel		Coal	Coal	Bunker C	Diesel	Bunker C	Diesel	Coal	Bunker C	Diesel	Bunker C	Diesel	
Fuel Price	$/bbl/$/mt	45	45	17.7	17.14	17.7	17.14	33.375	18.0093	21.3	18.099	21.3	
Fuel Heating Value	BTU/#	11175.18	5312.73	19000	19000	19000	19000	5312.73	18000	19000	19000	19000	
Conversion rate		3.968	3.283	5.1588	5.1283	5.1588	5.1283	3.958	5.1289	5.1588	5.1588	5.1593	
Plant Heat Rate		CTPP1	CTPP2	CDPP	CDPP	LBGT	LBGT	CTPP2	CDPP	CDPP	LBGT	LBGT	
Guaranteed	Kcal/kWh												
Net Plant Heat Rate	BTU/kWh	3207.55139	3052.55125	10900	10900	17340	17340	3052.55122	10900	10900	17340	17340	BTU/kWh
						cost of coal delivered at site =		1335 landed cost in Peso per metric ton					

Remission Escalated: CM
Effective Date of Escalation: 25-May-94

Escalation Formula: P1/P0 [0.25 * CE1/CE0 + 0.3*FLCP1/FLCP0] + 0.25*WPG1/WPG0 + 0.2*LCP1/LCP0

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Naga Thermal Plant Complex
CDPP1
Salcon Power Corp.

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference No	Year Period Start	Period End	Annual Energy Generation Available GWh	Guaranteed GWh	MEOT GWh	Capacity Payments Forex $M	Local PM	Operation and Maintenance Fee Fixed Asses & Rehab Forex $M	Local PM	O&M Forex $M	Local PM	Variable Forex $M	Local PM	Energy Fee Asses & Rehab Forex $M	Local PM	O&M Forex $M	Local PM	Service Fee Forex $M	Local PM	Infrastructure Fee Forex $M	Local PM	Total IPP Payments Forex $M	Local PM	Fuel Cost Forex $M	Peso PM Equivalent	Total Payments Forex $M	Local PM
1	Jun-94	Dec-94	125.93	157.96	156.67				42.30					1.51								1.51	42.30	3.90	103.25	5.41	42.30
2	Jan-95	Dec-95	215.82	287.77	258.58				74.18					2.76								2.76	74.18	6.51	167.30	9.27	74.18
3	Jan-96	Dec-96	215.82	287.77	258.58				77.19					2.76								2.76	77.19	6.51	170.56	9.27	77.19
4	Jan-97	Dec-97	215.82	287.77	258.58				83.33					2.76								2.76	83.33	6.51	181.74	9.27	83.33
5	Jan-98	Dec-98	215.82	287.77	258.58						98.55					3.71						3.71	98.55	6.51	255.58	10.22	98.65
6	Jan-99	Dec-99	215.82	287.77	258.58						97.14					3.71						3.71	97.14	6.51	290.25	10.22	97.14
7	Jan-00	Dec-00	215.82	287.77	258.58						97.14					3.71						3.71	97.14	6.51	290.25	10.22	97.14
8	Jan-01	Dec-01	215.82	287.77	258.58						97.14					3.71						3.71	97.14	6.51	290.25	10.22	97.14
9	Jan-02	Dec-02	215.82	287.77	258.58						97.14					3.71						3.71	97.14	6.51	290.25	10.22	97.14
10	Jan-03	Dec-03	215.82	287.77	258.58						97.14					3.71						3.71	97.14	6.51	290.25	10.22	97.14
11	Jan-04	Dec-04	215.82	287.77	258.58						97.14					3.71						3.71	97.14	6.51	290.25	10.22	97.14
12	Jan-05	Dec-05	215.82	287.77	258.58						97.14					3.71						3.71	97.14	6.51	290.25	10.22	97.14
13	Jan-06	Dec-06	215.82	287.77	258.58						97.14					3.71						3.71	97.14	6.51	290.25	10.22	97.14
14	Jan-07	Dec-07	215.82	287.77	258.58						97.14					3.71						3.71	97.14	6.51	290.25	10.22	97.14
15	Jan-08	Dec-08	215.82	287.77	258.58						97.14					3.71						3.71	97.14	6.51	290.25	10.22	97.14
16	Jan-09	May-09	89.93	119.90	111.91						40.47					1.55						1.55	40.47	2.73	103.24	4.28	40.47
																					NPV	23.91	473.51			65.80	473.51

General Data

Cooperation Period	year	15							
Date of Commercial Operation	year	31-May-94							
Contracted Capacity	MW								
			CTPP1	CTPP2	CCPP	LBGT			
Guaranteed Capacity	MW		50	55.3	43.9	55			
Guaranteed Energy	GWH		350	398	288	241			
Minimum Offtake	GWH		307	348	250	72			
Guaranteed Plant Factor	%		80%	85%	75%	50%			
Minimum Offtake Plant Factor	%		70%	70%	70%	15%			
Outage Allowance			1,752.0	hrs	2,190.0	73.00	days + inspection allowance		
Available Energy	GWh		280.32	319.44	215.82	122.72			
			CTPP1&2 Ass & Rehab Period	O&M Period	CCPP Ass & Rehab Period	O&M Period	LBGT Ass & Rehab Period	O&M Period	
Contract Capacity Rate (CCR)									
Forex	$/kW-mo								
Local	P/kW-mo								
Fixed O&M Rate (FOMR)									
Forex	$/kW-mo								
Local	P/kWh-mo		0.252	0.242	0.252	0.242	0.244	0.244	
Variable O&M Rate (VOMR)									
Forex	$/kWh								
Local	P/kWh								
Base Energy Rate (BER)									
Forex	$/kWh		0.00990	0.016	0.0024	0.0120	0.0538	0.0331	
Local	P/kWh								
Service Fee Rate									
Forex	$/kW-mo	0							
Local	P/kW-mo	0							
Infrastructure Fee									
Forex	$/kW-mo	0							
Local	P/kW-mo	0							
Fuel Cost	$/kWh		0.0233	0.0422	0.0501	0.0232	0.0490	0.0464	
Type of Fuel			Coal	Coal	Bunker C	Diesel	Bunker C	Diesel	
Fuel Price	$/bbl/$/mT		45	45	17.7	17.14	17.7	17.14	
Fuel Heating Value	BTU/lb		11175.18	5819.73	18000	19000	19000	19000	
Conversion rate			3.255	3.259	4.1535	4.1535	4.1938	4.1938	
Plant Heat Rate			CTPP1	CTPP2	CCPP	CCPP	LBGT	LBGT	
Guaranteed	Kcal/kWh								
Net Plant Heat Rate	BTU/kWh		3207.45123	3052.45123	10000	10000	17340	17340	BTU/kWh
					cost of coal delivered at site xxxxxx				
Items to be Escalated		O&M							
Effective Date of Escalation		25-May-94							
Escalation Formula	P1/P0 = [0.25 * CE1/CE0 + 0.5*FLCP1/FLCP0] + 0.25*WPG1/WPG0 + 0.2 * LCP1/LCP0								

1999 Fuel

0.0172	0.0318	0.0358	0.0545	0.0490	0.0577	
Coal	Coal	Bunker C	Diesel	Bunker C	Diesel	
33.375	33.375	14.0000	21.3000	14.0000	21.3000	
11175.15	5819.73	18000	19000	19000	18000	
3.259	3.258	4.1938	4.1938	4.1938	4.1288	
CTPP1	CTPP2	CCPP	CCPP	LBGT	LBGT	
3207.45129	3082.45129	10000	10000	17340	17340	BTU/kWh
1335	1335	landed cost in Peso per metric ton				

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Naga Thermal Power Plant Complex
CTPP1
Salcon Power Corp.

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference No	Year Period Start	Period End	Annual Energy Generation Available GWh	Guaranteed GWh	MEOT GWh	Capacity Payments Forex $M	Capacity Payments Local PM	O&M Fee Fixed Asset & Rehab Forex $M	O&M Fee Fixed Asset & Rehab Local PM	O&M Fee Fixed O&M Forex $M	O&M Fee Fixed O&M Local PM	O&M Fee Variable Forex $M	O&M Fee Variable Local PM
1	Jan-94	Dec-94	143.32	204.4	175.85				51.559				
2	Jan-95	Dec-95	280.32	350.4	306.6				90.324				
3	Jan-96	Dec-96	280.32	350.4	306.6				93.988				
4	Jan-97	Dec-97	280.32	350.4	306.6				101.463				
5	Jan-98	Dec-98	280.32	350.4	306.6						118.910		
6	Jan-99	Dec-99	280.32	350.4	306.6						117.223		
7	Jan-00	Dec-00	280.32	350.4	306.6						117.223		
8	Jan-01	Dec-01	280.32	350.4	306.6						117.223		
9	Jan-02	Dec-02	280.32	350.4	306.6						117.223		
10	Jan-03	Dec-03	280.32	350.4	306.6						117.223		
11	Jan-04	Dec-04	280.32	350.4	306.6						117.223		
12	Jan-05	Dec-05	280.32	350.4	306.6						117.223		
13	Jan-06	Dec-06	280.32	350.4	306.6						117.223		
14	Jan-07	Dec-07	280.32	350.4	306.6						117.223		
15	Jan-08	Dec-08	280.32	350.4	306.6						117.223		
16	Jan-09	May-09	135.9	145	127.75						45.845		

Reference No	Energy Fee Asset & Rehab Forex $M	Energy Fee Asset & Rehab Local PM	Energy Fee O&M Forex $M	Energy Fee O&M Local PM	Service Fee Forex $M	Service Fee Local PM	Infrastructure Fee Forex $M	Infrastructure Fee Local PM	Total PP Payments Forex $M	Total PP Payments Local PM	Fuel Cost Forex $M	Fuel Cost Peso PM Equivalent	Total Costs Forex $M	Total Costs Local PM
1	2.90								2.90	51.51	3.61	133.45	5.51	51.51
2	3.43								3.43	90.32	4.52	157.52	9.95	91.32
3	3.43								3.43	93.29	4.52	170.85	9.65	93.22
4	3.43								3.43	101.46	4.52	192.11	9.95	101.46
5			5.61						5.61	118.91	4.52	244.57	12.13	118.91
6			5.61						5.61	117.22	4.83	193.39	10.44	117.22
7			5.61						5.61	117.22	4.83	193.34	10.44	117.22
8			5.61						5.61	117.22	4.83	193.39	10.44	117.22
9			5.61						5.61	117.22	4.83	192.39	10.44	117.22
10			5.61						5.61	117.22	4.83	193.32	10.44	117.22
11			5.61						5.61	117.22	4.83	193.39	10.44	117.22
12			5.61						5.61	117.22	4.83	193.33	10.44	117.22
13			5.61						5.61	117.22	4.83	192.39	10.44	117.22
14			5.61						5.61	117.22	4.83	193.32	10.44	117.22
15			5.61						5.61	117.22	4.83	193.34	10.44	117.22
16			2.24						2.24	45.64	2.71	90.53	4.35	45.54
								NPV	36.19	571.41			47.24	571.41

General Data

Cooperation Period	year	15						
Date of Commercial Operation	year	May-94						
Contracted Capacity	MW							
			CTPP1	CTPP2	CCPP	LBGT		
Guaranteed Capacity	MW		50	56.8	43.8	55		
Guaranteed Energy	GWh		350	358	288	241		
Minimum Offtake	GWh		307	349	269	72		
Guaranteed Plant Factor	%		80%	80%	75%	50%		
Minimum Offtake Plant Factor	%		70%	70%	70%	15%		
Outage Allowance			1,752.0	hrs	2,190.0	73.00	days + inspection allowance	
Available Energy	GWh		280.32	318.44	215.82	192.72		
			CTPP1&2		CCPP		LBGT	
			Ass & Rehab Period	O&M Period	Ass & Rehab Period	O&M Period	Ass & Rehab Period	O&M Period
Contract Capacity Rate (CCR)								
Forex	$/kW-mo							
Local	P/kW-mo							
Fixed O&M Rate (FOMR)								
Forex	$/kW-mo							
Local	P/kW-mo		0.252	0.242	0.252	0.242	0.244	0.244
Variable O&M Rate (VOMR)								
Forex	$/kWh							
Local	P/kWh							
Base Energy Rate (BEP)								
Forex	$/kWh		0.00280	0.016	0.0095	0.0129	0.0538	0.0131
Local	P/kWh							
Service Fee Rate								
Forex	$/kW-mo	0						
Local	P/kW-mo	0						
Infrastructure Fee								
Forex	$/kW-mo	0						
Local	P/kW-mo	0						

Fuel Cost	$/kWh	0.0233	0.0422	0.0301	0.0222	0.0480	0.0454		0.0172	0.0318	0.0308	0.0363	0.0490	0.0577
									1992 Fuel					
Type of Fuel		Coal	Coal	Bunker C	Diesel	Bunker C	Diesel		Coal	Coal	Bunker C	Diesel	Bunker C	Diesel
Fuel Price	$/bbl/$/mT	45	45	17.7	17.14	17.7	17.14		33.375	33.375	18.0990	21.3920	18.0990	21.3920
Fuel Heating Value	BTU/lb	11175.18	5812.73	18000	18000	18000	18000		11175.2	5812.73	18000	18000	18000	18000
Conversion rate		3.968	3.968	6.1939	5.1935	6.1948	5.1998		3.968	3.968	6.1988	5.1938	6.1983	5.1988
Plant Heat Rate		CTPP1	CTPP2	CCPP	CCPP	LBGT	LBGT		CTPP1	CTPP2	CCPP	CCPP	LBGT	LBGT
Guaranteed	Kcal/kWh	3207.65122	3092.65125	10000	10000	17340	17340 BTU/kWh		3207.65129	3092.65129	10000	10000	17340	17340 BTU/kWh
Net Plant Heat Rate	BTU/kWh			cost of coal delivered at site in areas					1335	1335				

Items to be Escalated		DM
Effective Date of Escalation		May-94
Escalation Formula	P1/P0 = [0.25 * DE1/DE0 + 0.31 FLCP1/FLCP0] + 0.25 WPG1/WPG0 + 0.21 LCP1/LCP0	

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Navotas Gas Turbine 4
Hopewell Holdings Ltd.

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference			Annual Energy Generation			Capacity Payments		Operation and Maintenance Fee				Energy Fee		Service Fee		Infrastructure Fee		Total Payments		Fuel Cost		Total Payments	
No.	Year Period Start	Period End	Theoretical GWh	Available GWh	MEOT GWh	Forex $M	Local PM	Fixed Forex $M	Fixed Local PM	Variable Forex $M	Variable Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Local PM	Forex $M	Peso PM Equivalent	Forex $M	Local PM
1	Mar-93	Dec-93	511.0	408.9		5.020						0.2555						5.28		14.38	366.85	19.654	0.000
2	Jan-94	Dec-94	613.2	490.7		6.024						0.3066						6.33		17.25	467.95	23.585	0.000
3	Jan-95	Dec-95	613.2	490.7		6.024						0.3066						6.33		17.25	455.82	23.585	0.000
4	Jan-96	Dec-96	613.2	490.7		6.024						0.3066						6.33		17.25	443.69	23.585	0.000
5	Jan-97	Dec-97	613.2	490.7		6.024						0.3066						6.33		17.25	452.34	23.585	0.000
6	Jan-98	Dec-98	613.2	490.7		6.024						0.3066						6.33		17.25	508.51	23.585	0.000
7	Jan-99	Dec-99	613.2	490.7		6.024						0.3066						6.33		17.25	705.59	23.585	0.000
8	Jan-00	Dec-00	613.2	490.7		6.024						0.3066						6.33		17.25	690.19	23.585	0.000
9	Jan-01	Dec-01	613.2	490.7		6.024						0.3066						6.33		17.25	690.19	23.585	0.000
10	Jan-02	Dec-02	613.2	490.7		6.024						0.3066						6.33		17.25	690.19	23.585	0.000
11	Jan-03	Dec-03	613.2	490.7		6.024						0.3066						6.33		17.25	690.19	23.585	0.000
12	Jan-04	Dec-04	613.2	490.7		6.024						0.3066						6.33		17.25	690.19	23.585	0.000
13	Jan-05	Feb-05	102.2	81.8		1.004						0.0511						1.08		2.88	115.05	5.931	0.000
																NPV		25.94				96.65	0.00

General Data

Cooperation Period	Year	12		
Date of Commercial Operation	Year	Mar-93		
Contracted Capacity	MW	100.00		
Plant Factor	%	70%		
Allowable Downtime		1750.0 hrs/unit/year		
Planned				
Unplanned				
Annual Energy Generation	GWh	613.2		
Available Energy	GWh	490.7		
Rates				
Contract Capacity Rate (CCR)				
Forex	$/kW-mo.	5.020		
Local	P/kW-mo.			
Fixed O&M Rate (FOMR)				
Forex	$/kW-mo.			
Local	P/kW-mo.			
Variable O&M Rate (VOMR)				
Forex	$/kWh			
Local	P/kWh			
Base Energy Rate (BER)				
Forex	$/kWh	0.0005		
Local	P/kWh	0.0000		
Service Fee Rate				
Forex	$/kW-mo	0		
Local	P/kW-mo	0		
Infrastructure Fee				
Forex	$/kW-mo	0		
Local	P/kW-mo	0		
Fuel Cost	$/kWh	0.0352	0.0423	
Type of Fuel		Diesel	Diesel	
Fuel Price	$/bbl/$/mT	17.7 (MOPS) Ja	21.3	MOPS August 1999
Fuel Heating Value	BTU/lb	18400	18400	
conversion rate		6.55	6.55	
Plant Heat Rate		0	0	
Guaranteed	BTU/kWh	12300	12300	
Net Plant Heat Rate	BTU/kWh	0	0	
Items to be Escalated	no escalation provided in the contract			
Effective Date of Escalation		29-Jun-92		

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MakBan Binary Geo. Plant
ORMAT Inc.
Bay, Laguna

General Data

Cooperation Period	year	10	
Target/Actual Start Date		1-Mar-94	
Target/Actual Completion Date		1-Mar-04	
Installed Capacity	MW	15.73	
Contracted Net Capacity	MW	12.90	at delivery point
Plant Factor	%	80%	
No. of Units			
Allowable Downtime			
Planned Outage	no. of days/unit		
Unplanned Outage	total		
Guaranteed Annual Energy	GWh	90.403	for years with 365 days
		90.650	for years with 366 days

Rates	Forex US$/month	Local a/ in US$	
Base O&M Fees			
Fixed Cost O&M Fees	595,000	200,500	
Variable Cost O&M Fees	107,000		
Capital O&M Fee	10,000	25,000	
Fixed Service Fee	234,375		
Sub-total	946,375	225,500	
	946,375	5,752,505	Peso Equiv/month

a/ Peso portion converted to Pesos at the CB guiding rate for US$ on 31 Janaury 1992

Exchange Rate:	P/US$	40
Discount Rates	Forex	8%
	Local	15%

Base Cost Calculation
Unescalated (Base Year 2000)

No.	Reference Year Start of Period	End of Period	Guaranteed Annual Energy GWh	Operation and Maintenance Fee Forex US$M	Operation and Maintenance Fee Local PM	Total IPP Payments Forex US$M	Total IPP Payments Local PM
1	Mar-94	Dec-94	75.336	9.99	67.49	9.99	67.49
2	Jan-95	Dec-95	90.403	12.33	87.54	12.33	87.54
3	Jan-96	Dec-96	90.650	12.69	94.92	12.69	94.92
4	Jan-97	Dec-97	90.403	13.00	99.71	13.00	99.71
5	Jan-98	Dec-98	90.403	13.20	109.26	13.20	109.26
6	Jan-99	Dec-99	90.403	13.31	115.63	13.31	115.63
7	Jan-00	Dec-00	90.650	13.31	115.63	13.31	115.63
8	Jan-01	Dec-01	90.403	13.31	115.63	13.31	115.63
9	Jan-02	Dec-02	90.403	13.31	115.63	13.31	115.63
10	Jan-03	Dec-03	90.403	13.31	115.63	13.31	115.63
11	Jan-04	Feb-04	15.314	3.33	28.91	3.33	28.91
					NPV	46.36	344.50

Items to be Escalated	OM
Escalation Formula	Dollar denominated Fees = USI1/USIo
	Peso denominated O&M Fees= PI1/PIo
Effective Date of Escalation	31-Jan-92

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Bac-Man
ORMAT Inc.
Bacon-Manito, Sorsogon

General Data			
Bid Date			
Cooperation Period		year	10
Target/Actual Start Date		year	? not operational
Target/Actual Completion Date		year	? not operational
Installed Capacity		MW	15.73
Contracted Net Capacity		MW	12.90 at delivery point
Plant Factor		%	80%
No. of Units			
Allowable Downtime			
Planned Outage	no. of days/unit		
Unplanned Outage	total		
Guaranteed Annual Energy		GWh	90.403 for years with 365 days 90.650 for years with 366 days

	Forex	Local a/
Rates	US$	
Base O&M Fees	657,625	265,500

Exchange Rate:	P/US$	40
Discount Rates	Forex	8%
	Local	15%

Base Cost Calculation·
Unescalated (Base Year 2000)

Reference No.	Year Start of Period	End of Period	Guaranteed Annual Energy GWh	Operation and Maintenance Fee Forex US$M	Local PM	Total Fee Payments Forex US$M	Local PM
1	?	?	90.403	7.89	3.19	7.89	3.19
2	?	?	90.403	7.89	3.19	7.89	3.19
3	?	?	90.403	7.89	3.19	7.89	3.19
4	?	?	90.403	7.89	3.19	7.89	3.19
5	?	?	90.403	7.89	3.19	7.89	3.19
6	?	?	90.403	7.89	3.19	7.89	3.19
7	?	?	90.403	7.89	3.19	7.89	3.19
8	?	?	90.403	7.89	3.19	7.89	3.19
9	?	?	90.403	7.89	3.19	7.89	3.19
10	?	?	90.403	7.89	3.19	7.89	3.19
				NPV		52.95	15.99

Items to be Escalated	OM
Effective Date of Escalation	31-Jan-92
Escalation Formula	Dollar denominated Fees = USI1/USIo Peso denominated O&M Fees= PI1/PIo

Mindanao Power Barges (PB 117 and PB 118)
MITSUI-BWSB

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

No	Year Period Strt	Year Period End	Annual Energy Generation Theoretical GWh	Available GWh	NEDT GWh	Capacity Payments Forex $M (DKK)	Forex $M (JPY)	Local P M	O&M Fee Fixed Forex $M	Fixed Local P M	Variable Forex $M	Variable Local P M	Energy Fee Forex $M DKK	Forex $M JPY	Local P M	Infrastructure Fee Forex $M	Local P M	Service Fee Forex $M	Local P M	Facility Fee Forex $M DKK	Local P M	Total IPP Payments Forex $M	Local P M	Fuel Cost Forex $M	Peso P M Equivalent	Total Costs Forex	Local
1	Mar-94	Dec-94	1489.2			3.21	1.84	40.43					1.17	2.02	80.84					0.56		8.33	121.46	28.13	741.04	36.91	121.46
2	Jan-95	Dec-95	1489.2			4.45	2.03	43.35					1.37	2.18	78.49					0.63		10.64	122.43	28.13	723.22	38.77	122.43
3	Jan-96	Dec-96	1489.2			4.22	1.75	47.41					1.33	1.89	80.72					0.64		9.71	127.43	28.13	737.48	38.86	127.41
4	Jan-97	Dec-97	1489.2			3.84	1.40	51.23					1.19	1.72	90.18					0.57		5.92	141.43	28.17	828.95	37.61	141.43
5	Jan-98	Dec-98	1489.2			3.82	1.48	51.97					1.17	1.37	125.13					0.56		5.44	177.11	28.23	1158.24	34.73	177.11
6	Jan-99	Dec-99	1489.2			3.82	1.48	51.97					1.17	1.57	125.13					0.56		5.40	177.41	28.13	1135.12	34.73	177.41
7	Jan-00	Dec-00	[illegible]			[illegible]	[illegible]	[illegible]					[illegible]	[illegible]	[illegible]					[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	Jan-01	Dec-01	1489.2			[illegible]	[illegible]	[illegible]					[illegible]	[illegible]	[illegible]					[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	Jan-02	Dec-02	[illegible]			[illegible]	[illegible]	[illegible]					[illegible]	[illegible]	[illegible]					[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	Jan-03	Dec-03	[illegible]			[illegible]	[illegible]	[illegible]					[illegible]	[illegible]	[illegible]					[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	Jan-04	Dec-04	[illegible]			[illegible]	[illegible]	[illegible]					[illegible]	[illegible]	[illegible]					[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	Jan-05	Dec-05	[illegible]			[illegible]	[illegible]	[illegible]					[illegible]	[illegible]	[illegible]					[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	Jan-06	Dec-06	[illegible]			[illegible]	[illegible]	[illegible]					[illegible]	[illegible]	[illegible]					[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	Jan-07	Dec-07	[illegible]			[illegible]	[illegible]	[illegible]					[illegible]	[illegible]	[illegible]					[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	Jan-08	Dec-08	[illegible]			[illegible]	[illegible]	[illegible]					[illegible]	[illegible]	[illegible]					[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	Jan-09	Feb-09	[illegible]			0.64	[illegible]	[illegible]					[illegible]	[illegible]	[illegible]					0.64		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
																				NPV		55.12	852.21			232.66	852.51

Assumptions

Cooperation Period		year	15	
Date of Commercial Operation		year	1-Mar-94	
Contracted Capacity		MW	200.00	
Plant Factor		%	85%	
Annual Energy Generation		GWh	1489.20	
Allowable Downtime	hr/yr	Years 1-7	760.00	
		Years 8-15	1314.00	
Planned Outage				
Unplanned Outage				
Available Annual Energy Generation		Years 1-7	1340.00	GWh
		Years 8-15	1263.82	GWh
Availability	Years 1-7	hrs	8 000.00	Appr 91.3%
	Years 8-15	hrs	7 446.00	Appr 85%
Discount Rates		Forex	8.0%	
		Local	15.0%	
Contract Capacity Rate (CCR)				
Forex		DKK/kW-mo	8.81	DKK/kW-mo
		JPY/kW-mo	77.16	JPY/kW-mo
Local		P/kW-mo	13.43	P/kW-mo
Fixed O&M Rate (FO&MR)				
Forex		$/kW-mo	0.00	
Local		P/kW-mo	0.00	
Variable O&M Rate (VO&MR)				
Forex		$/kWh		
Local		P/kWh		
Base Energy Rate (BER)				
Forex		DKK/MWh	5.32	DKK/MWh (yrs 1-7)
		JPY/MWh	143.74	JPY/MWh (yrs 1-7)
		DKK/MWh	7.58	DKK/MWh (yrs 8-15)
		JPY/MWh	143.78	JPY/MWh (yrs 8-15)
Local		P/MWh	41.828	P/MWh (yrs 1-7)
		P/MWh	41.828	P/MWh (yrs 8-15)
Service Fee Rate				
Forex		$/kW-mo	0	
Local		P/kW-mo	0	
Infrastructure Fee				
Forex		$/kW-mo	0	
Local		P/kW-mo	0	
Towage Fee				
Forex		DKK/yr	250	
Local		JPY/yr	2 050	
Start up Fee				
Forex		DKK	20 091	
Local		JPY	205 027	
Facility Fee				
Forex		DKK/mo	258 400	
Local		P/mo	-	
Fuel Cost		$/kWh	0.0194	Fuel 1999 0.0207
Type of Fuel			Bunker C	Bunker C
Fuel Price		$/bbl/$/MT	17.00	18.0330 MIPS Average August 1999
Fuel Heating Value		BTU/lb	17,216	17,215
conversion rate			6.1988	6.198800
Plant Heat Rate			6 994.6	6 994.63
Guaranteed		BTU/kWh	0	
Net Plant Heat Rate		BTU/kWh	0	
Items to be Escalated			all fees	

Escalation Formula

Capacity Fees
Peso denominated fees =[0.85 * (SPn1/SPo) + 0.15 * (JPn1/JPo)] SPo = 479.4
DKK denominated fees =[0.85 * (CWn1/CWo) + 0.15 * (DJPn1/DJPo)] CWo = 139.6
JPY denominated fees =[0.85 * (JJPn1/JJPo) + 0.15 * (JWPn1/JWPo)] JJPo = 110.3

Energy Fees
Peso denominated fees =[CPIn1/CPIo] CPIo = 150.7
DKK denominated fees =[CWPn1/CWPo] CWPo = 194
JPY denominated fees =[JWPn1/JWPo] JWPo = 122.7

Facility Fee
DKK denominated fees =[CWPn1/CWPo] CWPo = 194

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Limay, Bataan Combined Cycle Power Plant (Block A)
Marubeni/Kawasaki
With Injection-Wet

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference No	Year Period Start	Period End	Annual Energy Generation Available GWh	Guaranteed GWh	MEOT GWh	Capacity/Service Payments Forex $M	Local PM	Operation and Maintenance Fee Fixed Forex $M	Fixed Local PM	Variable Forex $M	Variable Local PM	Energy Fee Forex $M	Local PM	Service Fee Forex $M	Local PM	Infrastructure Fee Forex $M	Local PM	Total IPP Payments Forex $M	Local PM	Fuel Cost Forex $M	Peso PM Equivalent	Total Payments Forex $M	Local PM
1	May-94	Dec-94	1545.93	1438.00		5.55	28.64					5.28	27.21			1.51	13.27	12.34	59.82	52.48	1433.24	54.82	59.82
2	Jan-95	Dec-95	2181.24	2354.00		12.85	58.34					5.75	32.57			2.46	24.62	21.06	123.73	74.05	1959.12	95.11	123.73
3	Jan-96	Dec-96	2181.24	2354.00		15.14	71.70					4.77	32.07			2.93	30.85	24.89	134.63	74.05	1934.07	98.85	134.63
4	Jan-97	Dec-97	2181.24	2354.00		14.61	77.75					4.53	34.77			2.80	33.01	23.93	144.53	74.05	1941.21	97.58	144.53
5	Jan-98	Dec-98	2181.24	2354.00		12.49	81.57					5.58	36.53			2.39	28.54	20.47	149.84	74.05	2102.24	94.52	149.94
6	Jan-99	Dec-99	2181.24	2354.00		12.51	90.49					5.63	40.03			2.40	31.42	20.51	149.94	74.05	3028.04	94.55	193.34
7	Jan-00	Dec-00	2181.24	2064.00		12.78	93.21					5.73	42.36			2.45	33.80	20.54	170.83	75.72	3028.82	96.58	170.87
8	Jan-01	Dec-01	2181.24	2064.00		12.78	93.21					5.71	42.36			2.45	33.80	20.54	170.97	75.72	3034.82	96.06	170.87
9	Jan-02	Dec-02	2181.24	2354.00		12.74	93.21					5.71	42.36			2.45	33.80	20.64	170.97	75.72	3028.82	95.68	170.87
10	Jan-03	Dec-03	2181.24	2354.00		12.74	93.21					5.71	42.36			2.45	33.80	20.64	170.97	75.72	3028.82	98.68	170.97
11	Jan-04	Dec-04	2181.24	2064.00		12.75	93.21					5.71	42.36			2.45	33.80	20.94	170.83	75.72	3028.82	96.99	170.97
12	Jan-05	Dec-05	2181.24	2064.00		12.58	93.21					5.71	42.36			2.45	33.80	20.73	169.33	75.72	3034.82	96.46	169.36
13	Jan-06	Dec-06	2181.24	2354.00		12.58	93.21					5.71	42.36			2.45	33.80	20.73	169.38	75.72	3028.82	95.46	169.33
14	Jan-07	Dec-07	2181.24	2354.00		12.58	93.21					5.71	42.36			2.45	33.80	20.73	169.18	75.72	3028.82	99.46	169.18
15	Jan-08	Dec-08	2181.24	2064.00		12.55	93.21					5.71	42.36			2.45	33.80	20.73	169.38	75.72	3028.82	99.44	169.39
16	Jan-09	Sep-09	2181.24	2064.00		9.43	53.21					5.71	42.36			1.33	23.23	15.98	137.62	75.72	3035.82	82.75	137.62
																NPV		138.20	947.22			546.22	947.22

Assumptions

Cooperation Period	year	15	
Date of Commercial Operation	year	1-May-94	Simple Cycle
		1-Oct-94	Combined Cycle
Contracted Capacity	MW	300.00	
Plant Factor	%	74%	
Discount Rates	%	8%	
		15%	
Guaranteed Availability (page 53 contract)		75.3%	(1-6 months)
		83%	thereafter
Guaranteed Energy (page 54 contract)		872	GWh for dry (1-6 months)
		922	GWh for wet (1-6 months) w/ water injection
		1952	GWh for dry (thereafter)
		2354	GWh for wet (thereafter) w/ water injection
Contract Capacity Rate (CCR) is equal to service fee			
Forex	$/kW-mo	0.00	
Local	P/kW-mo	0.00	
Fixed O&M Rate (FOMR)			
Forex	$/kW-mo	0.00	
Local	P/kW-mo	0.00	
Variable O&M Rate (VOMR)			
Forex	$/kWh	0	
Local	P/kWh	0	
Base Energy Rate (BER) (100% for SC and 100% for CC)			
Forex	total (forex + local)	5,747,359.00	CHF/yr w/o H2O injection
	forex	5,507,774.00	CHF/yr w/o H2O injection
	local	8,372,520.00	pho/yr w/o H2O injection
	total (forex + local)	7,383,114.00	CHF/yr w/ H2O injection
	forex	4,572,144.00	CHF/yr w/ H2O injection
	local	12,552,542.00	pho/yr w/ H2O injection
Service Fee Rate (35% for Simple Cycle and 100% for CC)			
Forex	88%	12,078,000.00	CHF/yr (1-5 yrs)
Local	CHF to P 22.9554	34,215,400.00	P/yr (1-5 yrs)
	total (Forex + Local) 5-10 yrs	14,525,000.00	CHF/yr (5-10 yrs)
	total (Forex + Local) 11-15 yrs	15,245,000.00	CHF/yr (11-15 yrs)
		14,542,880.00	CHF/yr (5-10 yrs)
		43,738,333.74	P/yr (5-10 yrs)
		14,313,200.00	CHF/yr (11-15 yrs)
		43,045,151.94	P/yr (11-15 yrs)
Infrastructure Fee			
Forex		2,754,000.00	CHF/yr
Local		22,281,140.00	P/yr
Start-up Fee			
		7,300.00	CHF/start-up

			Fuel 1993		
Fuel Cost	$/kWh	0.0339	0.0347		0.0254
Type of Fuel		Bunker	Bunker		
Fuel Price	$/bbl/mmf	17.7	18.0931	MCFS Average August	13.24
Fuel Heating Value	BTU/lb	18457	18453		
Conversion rate		4.55	4.55		
Plant Heat Rate		11937	11937		
Guaranteed	BTU/kWh	0	0		
Net Plant Heat Rate	BTU/kWh	0	0		
Items to be Escalated		all fees			

Escalation Formula

infrastructure fee swiss francs x	swiss CPI
service fee pesos x	Phil. CPI
energy fee swiss francs x	swiss CPI
energy fee pesos x	

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Limay, Bataan Combined Cycle Power Plant (Block B)
Marubeni/ Kawasaki
With Injection - Wet

Base Cost Adjusted Based on Forex Fluctuation and Escalation Rates

Reference No	Year Period Strt	Period End	Annual Energy Generation Available GWh	Guaranteed GWh	MEOT GWh	Capacity/Service Payments Forex $M	Local PM	Operation and Maintenance Fee Fixed Forex $M	Fixed Local PM	Variable Forex $M	Variable Local PM	Energy Fee Forex $M	Local PM	Service Fee Forex $M	Local PM	Infrastructure Fee Forex $M	Local PM	Total IPP Payments Forex $M	Local PM	Fuel Cost Forex $M	Peso PM Equivalent	Total IPP Payments Forex $M	Local PM
-1	Apr-93	Dec-93	1545.93	1438.00		7.70						5.50	28.35			3.20	28.23	15.43	51.57	50.82	1378.21	66.22	51.57
0	Jan-94	Dec-94	1545.93	1438.00		11.19						5.00	30.21			3.23	33.77	20.37	54.47	50.92	1342.49	71.19	54.47
1	Jan-95	Dec-95	2181.24	2054.00		13.19						5.00	30.91			3.23	33.77	22.34	54.57	71.71	1894.23	94.05	54.47
2	Jan-96	Dec-96	2181.24	2054.00		15.59						7.05	33.41			3.77	35.49	25.32	59.90	71.71	1843.82	98.02	59.90
3	Jan-97	Dec-97	2181.24	2054.00		14.95						5.80	34.22			3.63	39.57	25.30	75.79	71.71	1873.80	97.10	75.79
4	Jan-98	Dec-98	2181.24	2054.00		12.79						5.82	38.05			3.11	41.57	21.72	79.62	71.71	2113.20	93.42	79.92
5	Jan-99	Dec-99	2181.24	2054.00		12.82						5.83	41.49			3.11	45.55	21.75	87.24	71.71	2032.24	93.45	87.24
6	Jan-00	Dec-00	2181.24	2054.00		13.08						5.95	44.12			3.15	48.20	22.23	92.33	75.72	3028.82	97.94	92.33
7	Jan-01	Dec-01	2181.24	2054.00		13.06						5.95	44.12			3.18	48.20	22.23	92.33	75.72	3028.82	97.94	92.33
8	Jan-02	Dec-02	2181.24	2054.00		13.06						5.96	44.12			3.19	48.30	22.22	92.33	75.72	3028.82	97.94	92.33
9	Jan-03	Dec-03	2181.24	2054.00		13.06						5.95	44.12			3.18	49.20	22.22	92.33	75.72	3028.82	97.94	92.33
10	Jan-04	Dec-04	2181.24	2054.00		15.34						5.75	44.12			3.19	48.20	24.49	92.33	75.72	3028.82	100.21	92.33
11	Jan-05	Dec-05	2181.24	2054.00		15.34						5.95	44.12			3.19	48.20	24.49	92.33	75.72	3028.82	100.21	92.33
12	Jan-06	Dec-06	2181.24	2054.00		15.34						5.95	44.12			3.18	48.30	24.49	92.33	75.72	3028.82	100.21	92.33
13	Jan-07	Dec-07	2181.24	2054.00		15.34						5.95	44.12			3.18	49.20	24.49	92.33	75.72	3028.82	100.21	92.33
14	Jan-08	Dec-08	2181.24	2054.00		15.34						5.95	44.12			3.19	49.20	24.44	92.33	75.72	3028.82	100.21	92.33
15	Jan-09	Dec-09	2181.24	2054.00		15.34						5.95	44.12			3.15	48.30	24.49	92.33	75.72	3028.82	100.21	92.33
																NPV		155.31	453.37			454.93	453.37

General Data

Cooperation Period	year	15	
Date of Commercial Operation	year	1-Apr-93	Simple Cycle
		1-Jan-95	Combined Cycle
Contracted Capacity	MW	300.00	
Plant Factor	%	74%	
Discount Rates		8%	
		15%	
Guaranteed Availability (page 53 contract)		75.6%	(1-6 months)
		83%	thereafter
Guaranteed Energy (page 54 contract)		872	GWh for dry (1-6 months)
		922	GWh for wet (1-6 months) w/ water injection
		1,952	GWh for dry (thereafter)
		2,054	GWh for wet (thereafter) w/ water injection
Contract Capacity Rate (CCR) is equal to service fee			
Forex	$/kW-mo	0.00	
Local	P/kW-mo	0.00	
Fixed O&M Rate (FOMR)			
Forex	$/kW-mo	0.00	
Local	P/kW-mo	0.00	
Variable O&M Rate (VOMR)			
Forex	$/kWh	0	
Local	P/kWh	0	

Base Energy Rate (BER) (100% for SC and 100% for CC)

Forex	total (forex + local)	5,587,388.00	CHF/yr w/o H2O injection
	forex	5,395,238.54	CHF/yr w/o H2O injection
	local	8,553,253.89	Php/yr w/o H2O injection
	total (forex + local)	7,383,114.00	CHF/yr w/ H2O injection
	forex	5,773,137.25	CHF/yr w/ H2O injection
	local	20,377,954.54	Php/yr w/ H2O injection

	w/o H2O injection Block A	Block B		w/ H2O injection Block A	Block B
Additive	4,829,734	4,829,734		5,461,440	5,461,440
Fuel treatment	280,040	558,000		280,040	589,000
Water treatment	347,280	347,290		1,135,000	1,133,000
Air intake	343,070	343,070		343,070	343,070
Compressor	158,254	158,254		158,254	158,254
	5,597,399	5,225,349		7,392,114	7,597,074
forex 0.94	5,957,774	5,395,209	0.88	6,502,144	5,773,137
Local 0.06	8,372,525	8,853,254	0.12		20,377,955
	373,514			185,073	
P/CHF	22.05			22.05	

Service Fee Rate (35% for Simple Cycle and 100% for CC)

Forex	14,922,000.00	CHF/yr (1-5 yrs)
Local	-	P/yr (1-5 yrs)
	17,454,000.00	CHF/yr (6-10 yrs)
	17,225,000.00	CHF/yr (11-15 yrs)

Infrastructure Fee

Forex	2,784,000	3,619,200.00	CHF/yr then inc 30% to 2784000 chf of Block A for Block B
Local		22,251,153.00	PHP/yr
Startup Fee		7,300.00	CHF/startup

				Fuel 1999	
Fuel Cost	$/kWh	0.0322		0.0347	
Type of Fuel		Bunker		Bunker	
Fuel Price	$/bbl/$/mT	17.14	(MOPS) Janua	18.0228	MOPS Average August 1999
Fuel Heating Value	BTU/lb	18450		18450	
conversion rate		6.55		6.55	
Plant Heat Rate		11937		11937	
Guaranteed	BTU/kWh	0		0	
Net Plant Heat Rate	BTU/kWh	0		0	
Hand to be Escalated		airfees			

Escalation Formula

service fee swiss francs =	swiss CPI
service fee pesos =	Phil CPI
energy fee swiss francs =	swiss CPI
energy fee pesos =	Phil CPI
infra swiss francs =	swiss CPI
infra pesos =	Phil CPI

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BAKUN HYDROELECTRIC POWER PLANT PROJECT (BOT)
PROPONENT : NORTHERN MINI HYDRO CORPORATION
: EVER ELECTRICAL MANUFACTURING INC
: ABOITIZ EQUITY VENTURES INC
: PACIFIC HYDRO LIMITED

General Data:

Cooperation Period Duration	yr	25
Unit 1 (35 MW)		
Target/Actual Start Date	September 2000	
Target/Actual Completion Date	August 2025	
Unit 2 (35 MW)		
Target/Actual Start Date	March 2001	
Target/Actual Completion Date	February 2026	
Contracted Capacity	MW	70
No. of Units		2
Allowable Downtime	days/Contra	15

Generation Sale Price

Rates:

		$	PHP
Capital Recovery Fee	cost/kW-mo		
Contract Year 1		90.00	
Contract Year 2		84.30	
Contract Year 3		78.60	
Contract Year 4		72.89	
Contract Year 5		66.71	
Contract Year 6		61.05	
Contract Year 7		55.38	
Contract Year 8		12.01	
Contract Year 9		10.94	
Contract Year 10		9.87	
Service Fee	cost/kW-mo	25.00	
Operating Fee	cost/kW-mo	13.22	
Energy Fee/Watershed Mgt. Fee	cost/kWh	0.0365	0.015 first 60 mos, 0.020 succeeding years
Exchange Rate	PHP/$	40	

YEAR	Period Start to Period End	No. mos. per year	Contracted Capacity (MW)	Excess Energy (GWh)	Capacity Fee ($ M)	Capacity Fee (PHP M)	Operating Fee ($ M)	Operating Fee (PHP M)	Service Fee ($ M)	Service Fee (PHP M)	Energy Fee ($ M)	Energy Fee (PHP M)	Total IPP Payments ($ M)	Total IPP Payments (PHP M)
2000	01 Sep - 31 Dec	4	70.00		25.20		3.70		7		-	3.07	35.90	3.07
2001	01 Jan. - 31 Dec.	12	70.00		75.60		11.10		21		-	9.20	107.70	9.20
2002	01 Jan. - 31 Dec.	12	70.00		70.81		11.10		21		-	9.20	102.92	9.20
2003	01 Jan. - 31 Dec.	12	70.00		66.02		11.10		21		-	9.20	98.13	9.20
2004	01 Jan. - 31 Dec.	12	70.00		61.23		11.10		21		-	9.20	93.33	9.20
2005	01 Jan. - 31 Dec.	12	70.00		56.04		11.10		21		-	12.26	88.14	12.26
2006	01 Jan. - 31 Dec.	12	70.00		51.28		11.10		21		-	12.26	83.39	12.26
2007	01 Jan. - 31 Dec.	12	70.00		46.52		11.10		21		-	12.26	78.62	12.26
2008	01 Jan. - 31 Dec.	12	70.00		10.09		11.10		21		-	12.26	42.19	12.26
2009	01 Jan. - 31 Dec.	12	70.00		9.19		11.10		21		-	12.26	41.29	12.26
2010	01 Jan. - 31 Dec.	12	70.00		8.29		11.10		21		-	12.26	40.40	12.26
2011	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2012	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2013	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2014	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2015	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2016	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2017	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2018	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2019	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2020	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2021	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2022	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2023	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2024	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2025	01 Jan. - 31 Dec.	12	70.00	374.93	0.00	-	11.10		21		13.68	12.26	45.79	12.26
2026	01 Jan. - 28 Feb	2	70.00	62.49	0.00	-	1.85		3.5		2.28	1.53	7.63	1.51
													716.22	64.03

CASECNAN MULTIPURPOSE PROJECT (BOT)
PROPONENT : CALIFORNIA WATER AND ENERGY CONSORTIUM
: NATIONAL IRRIGATION ADMINISTRATION

General Data:

Cooperation Period Duration	yr	20	
Target/Actual Start Date	January 2000		
Target/Actual Completion Date	December 2019		
Installed Capacity	MW	140	

Generation Sale Price

Rates:		$	PHP
Guaranteed Energy Fee	cost/kWh	0.165	
Excess Energy Fee	cost/kWh	0.156	
Exchange Rate	PHP/$	40	

YEAR	Period Start to Period End	No. of Days	Firm Energy GWh	Excess Energy (GWh)	Guaranteed Energy Fee ($ M)	Guaranteed Energy Fee (PHP M)	Excess Energy Fee ($ M)	Excess Energy Fee (PHP M)	Total Fee Payments ($ M)	Total Fee Payments (PHP M)
2000	01 Jan - 31 Dec	375	228.00	197.00	37.62	-	30.73	-	68.35	-
2001	01 Jan. - 31 Dec.	375	228.00	197.00	37.62	-	30.73	-	68.35	-
2002	01 Jan. - 31 Dec.	375	228.00	197.00	37.62	-	30.73	-	68.35	-
2003	01 Jan. - 31 Dec.	375	228.00	197.00	37.62	-	30.73	-	68.35	-
2004	01 Jan. - 31 Dec.	375	228.00	197.00	37.62	-	30.73	-	68.35	-
2005	01 Jan. - 31 Dec.	375	228.00	197.00	37.62	-	30.73	-	68.35	-
2006	01 Jan. - 31 Dec.	375	228.00	197.00	37.62	-	30.73	-	68.35	-
2007	01 Jan. - 31 Dec.	375	228.00	197.00	37.62	-	30.73	-	68.35	-
2008	01 Jan. - 31 Dec.	375	228.00	197.00	37.62	-	30.73	-	68 35	-
2009	01 Jan. - 31 Dec.	375	228.00	197.00	37.62	-	30 73	-	68 35	-
2010	01 Jan. - 31 Dec.	375	228.00	197.00	37.62	-	30.73	-	68 35	-
2011	01 Jan. - 31 Dec.	375	228.00	197.00	37.62	-	30.73	-	68 35	-
2012	01 Jan. - 31 Dec.	375	228.00	197 00	37.62	-	30.73	-	68 35	-
2013	01 Jan. - 31 Dec	375	228.00	197.00	37.62	-	30.73	-	68 35	-
2014	01 Jan - 31 Dec	375	228.00	197 00	37 62	-	30.73	-	68.35	-
2015	01 Jan - 31 Dec.	375	228.00	197 00	37.62	-	30.73	-	68 35	-
2016	01 Jan. - 31 Dec.	375	228.00	197.00	37.62	-	30.73	-	68 35	-
2017	01 Jan. - 31 Dec.	375	228.00	197 00	37.62	-	30.73	-	68 35	-
2018	01 Jan. - 31 Dec.	375	228 00	197 00	37 62	-	30.73	-	68 35	-
2019	01 Jan. - 31 Dec	375	228.00	197.00	37.62	-	30 73	-	68 35	-
									671 09	0 00

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SUAL COAL PLANT
PROPONENT SOUTHERN ENERGY / HOPEWELL
SUAL, PANGASINAN

General Data

Cooperation Period		
Duration	yr	25
Actual Start Date		[illegible]
Target Completion Date		[illegible]
Contracted Capacity	MW	1000
No. of Units		2
Allowable Downtime		55
Planned Outage	no. of days/unit	30
Unplanned Outage	total	25

Generation Sale Price
Rates

		$	PHP
Capital Recovery Fee	$/kWh		
Year 1-10		0.0235	
Year 11-20		0.0204	
Year 21-25		0.0172	
Service Fee	$/kWh		
Year 1-10		0.0023	
Year 11-20		0.0022	
Year 21-25		0.0017	
Infrastructure Fees	$/kWh		
Year 1-10		0.00137	
Year 11-20		0.00123	
Year 21-25		0.00103	
Fixed Operating Fee	$/kWh		
Year 1-10		0.0014	0.03833
Year 11-20		0.0012	0.03833
Year 21-25		0.0010	0.03833
Energy Fee			
Base Rate	$/kWh		
Year 1-10		0.0017	0.03833
Year 11-20		0.0015	0.03833
Year 21-25		0.0012	0.03833

Cost of Fuel $ / Coal Purchases — Equivalent (High Heating Value) — Average 40 — 3250

Base Fixed Operating and Energy Rates will be adjusted every 6 months according to the Japanese Export Price Index, US Export Price Index and European Price Index

Exchange Rate PHP/$ 40.00

YEAR	Period Starts / Period Ends	No. of Days	Annual Energy Contract (GWh)	Annual Energy Available (GWh)	Guaranteed Heat Rate (kCal/kWh)	Capacity Fee ($ M)	Capacity Fee (PHP M)	Service Fee ($ M)	Service Fee (PHP M)	Operations Fee ($ M)	Operations Fee (PHP M)	Energy Fee ($ M)	Energy Fee (PHP M)	Infrastructure Fee ($ M)	Infrastructure Fee (PHP M)	Total IPP Payments ($ M)	Total IPP Payments (PHP M)	Fuel Cost ($ M)	Fuel Cost (PHP M)	Total Costs ($ M)	Total Costs (PHP M)
1999	15 Oct - 31 Dec	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2000	1 Jan - 31 Dec	366	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2001	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2002	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2003	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2004	1 Jan - 31 Dec	366	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2005	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2006	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2007	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2008	1 Jan - 31 Dec	366	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2009	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2010	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2011	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2012	1 Jan - 31 Dec	366	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2013	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2014	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2015	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2016	1 Jan - 31 Dec	366	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2017	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2018	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2019	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2020	1 Jan - 31 Dec	366	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2021	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2022	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2023	1 Jan - 31 Dec	365	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2024	1 Jan - [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]

NPV [illegible]

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MAGELLAN CAVITE CO-GENERATION PROJECT
PROPONENT : MAGELLAN COGENERATION INC.
ROSARIO, CAVITE

General Data:

Cooperation Period				
Duration	yr	10		
Target/Actual Start Date		1-Apr-94		
Target/Actual End Date		31-Mar-04		
Contracted Capacity	MW	63		
No. of Units				
First Phase	6 x 8 MW			
Second Phase	3 x 5 MW			
Allowable Downtime				
1st five years	no. of days/unit	40		
2nd five years	no. of days/unit	45		
With Minimum Energy Offtake				
Generation Sale Price				
Rates:		$		PHP
Contract Capacity Fee	cost/kWh		0.02192	
Fixed Operating Fee	cost/kWh		0.00593	0.0837
Energy Fee	during testing only		0.00593	0.0837
Guaranteed Heat Rate, Kcal/kWh				
Tested Unit Heat Rate @ Net Contracted Capacity				

Fees Escalation Provision : To be applied to Capacity Fee and Operating Fee every

YEAR	$ to PHP	US Index[1]	Philippine Index[2]	Adjusted Rates Capacity	O & M	
Base Index	25.2	103.6	209.8			
1994	26.42	103.6	209.80	0.022981	0.00593	0.0837
1995	25.71	103.8	226.80	0.022364	0.005941	0.090482
1996	26.22	109.4	245.70	0.022807	0.006262	0.098022
1997	29.47	107.7	261.90	0.025634	0.006165	0.104485
1998	40.89	104.7	288.52	0.035568	0.005993	0.115105
1999	40	103.0	302.13	0.034794	0.005898	0.120535
2000	40	103.0	302.13	0.034794	0.005898	0.120535

1 US Export Price Index (excl. Agricultural products) taken from International Financial Statistics published by IMF
2 NEDA's Retail Price Index for all items in Metro Manila

Exchange Rate PHP/$ 40.00

YEAR	Period Start to Period End	Minimum Offtake	Guarantee Energy	No. of da per yea	Plant Availabl Energy (GWh	Capacity Fee ($ M)	Capacity Fee (PHP M)	Operating Fee ($ M)	Operating Fee (PHP M)	Total Fee Paymen ($ M)	Total Fee Paymen (PHP M)	Fuel Costs ($ M)	Fuel Costs (PHP M)	Total Cost ($ M)	Total Cost (PHP M)
1994	1 Apr. - 31 Dec.	241.86	241.86	275	155.72	5.56	-	0.92	13.03	6.48	13.03	3.715		10.20	13.03
1995	1 Jan. - 31 Dec.	348.34	348.34	365	310.17	7.79	-	1.84	28.06	9.63	28.06	7.401		17.03	28.06
1996	1 Jan. - 31 Dec.	343.29	343.29	365	305.67	7.83	-	1.91	29.96	9.74	29.96	7.293		17.04	29.96
1997	1 Jan. - 31 Dec.	337.77	337.77	365	300.75	8.66	-	1.85	31.42	10.51	31.42	7.176		17.69	31.42
1998	1 Jan. - 31 Dec.	331.72	331.72	365	295.37	11.80	-	1.77	34.00	13.57	34.00	7.047		20.62	34.00
1999	1 Jan. - 31 Dec.	325.02	325.02	365	284.95	11.31	-	1.68	34.35	12.99	34.35	6.953		19.94	34.35
2000	1 Jan. - 31 Dec.	317.58	317.68	365	278.50	11.05	-	1.64	33.57	12.69	33.57	6.795		19.49	33.57
2001	1 Jan. - 31 Dec.	309.55	309.56	365	271.41	10.77	-	1.60	32.71	12.37	32.71	6.622		18.99	32.71
2002	1 Jan. - 31 Dec.	300.65	300.65	365	263.58	10.46	-	1.55	31.77	12.01	31.77	6.431		18.45	31.77
2003	1 Jan. - 31 Dec.	290.81	290.81	365	254.98	10.12	-	1.50	30.73	11.62	30.73	6.221		17.84	30.73
2004	1 Jan. - 31 Mar.	102.06	102.06	90	12.56	3.55	-	0.07	1.52	3.63	1.52	0.307		3.93	1.52
									NPV(2000)	42.91	93.14	21.86	0.00	64.76	93.14

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EDISON GLOBAL COGENERATION PROJECT
PROPONENT : EDISON GLOBAL.
BATAAN

General Data:

Cooperation Period					
Duration	yr		10		
Target/Actual Start Date			21-Dec-93		
Target/Actual End Date			?		
Contracted Capacity	MW		58		
No. of Units					
Allowable Downtime			73		
Planned Outage	no. of days/unit		73		
Unplanned Outage	no. of days/unit		?		
With Guaranteed Energy	GWh		329		
Generation Sale Price					
Rates:				$	PHP
Contract Capacity Fee	cost/kWh	1st 5 yrs		0.02420	
		after 5 yrs.		0.01190	
Fixed Operating Fee	cost/kWh			0.00440	0.1630
Energy Fee	during testing only			0.00200	-
Guaranteed Heat Rate, Kcal/kWh					
Tested Unit Heat Rate @ Net Contracted Capacity					

Fees Escalation Provision . To be applied to Capacity Fee and Operating Fee every

YEAR	$ to PHP	US Index[1]	Philippine Index[2]	Adjusted Rates Energy	O & M $	O & M PHP
Base Index	25.2	113.4	209.8			
1994	26.42	113.4	209.80	0.00200	0 00440	0.16300
1995	25.71	116.6	225.80	0.00206	0.00452	0.17543
1996	26.22	120.0	245.70	0.00206	0.00453	0.17737
1997	29 47	122.9	261.90	0.00205	0.00451	0.17375
1998	40 89	124.8	288 52	0.00203	0 00447	0.17957
1999	40	124.8	302.13	0.00200	0.00440	0.16300
2000	40	124.8	302.13	0.00200	0.00440	0.16300

1 US Export Price Index (excl Agricultural products) taken from International Financial Statistics published by IMF
2 NEDA's Consumer Price Index for all items in Metro Manila

Exchange Rate PHP/$ 40.00

YEAR	Period Start to Period End	Theoretical Energy	Guaranteed Energy	No. of da per year	Plant Available Energy (GWh)	Capacity Fee ($ M)	Capacity Fee (PHP M)	Operating Fee ($ M)	Operating Fee (PHP M)	Energy Fee ($ M)	Energy Fee (PHP M)	Total IPP Payments ($ M)	Total IPP Payments (PHP M)	Fuel Costs ($ M)	Fuel Costs (PHP M)	Total Cost ($ M)	Total Cost (PHP M)
1993	21 Dec. - 31 Dec.	13.92	9 14	10	9 05	0.22	-	0.04	1.49	0.0183		0.280	1.49	0 216		0.50	1.49
1994	1 Jan. - 31 Dec.	508.08	329 00	365	264.20	7.96	-	1.45	53.63	0.6580		10.067	53.63	6.304		16.37	53 63
1995	1 Jan. - 31 Dec.	508 08	329 00	365	264.20	7.96	-	1.49	57.72	0.6766		10.127	57.72	6.304		16.43	57 72
1996	1 Jan. - 31 Dec.	508.08	329 00	365	264.20	7.96	-	1 49	58.35	0.6772		10.129	58.35	6 304		16.43	58 35
1997	1 Jan. - 31 Dec.	508 08	329 00	365	264.20	7.96	-	1.48	57.16	0.6739		10.118	57.16	6 304		16.42	57 16
1998	1 Jan. - 31 Dec.	508.08	329 00	365	264.20	7 96	-	1.47	59.08	0.6682		10 100	59.08	6.447		16.55	59 08
1999	1 Jan. - 31 Dec.	508 08	329.00	365	264.20	3.92	-	1.45	53.63	0.6580		6.021	53 63	6.447		12.47	53 63
2000	1 Jan. - 31 Dec.	508 08	329 00	365	264.20	3.92	-	1.45	53.63	0.6580		6.021	53.63	6.447		12.47	53.63
2001	1 Jan. - 31 Dec.	508.08	329.00	365	264.20	3.92	-	1.45	53.63	0.6580		6.021	53.63	6.447		12.47	53.63
2002	1 Jan. - 31 Dec.	508 08	329.00	365	264.20	3.92	-	1.45	53.63	0.6580		6.021	53.63	6.447		12.47	53.63
2003	1 Jan. - 20 Dec.	494.16	319.56	355	255.15	3.81	-	1.31	52.14	0.6397		5.853	52.14	6.220		12.08	52.14
								NPV(2000)				23.93	179.03	25.59	0.00	49 51	179 03

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MAGELLAN CAVITE CO-GENERATION PROJECT
PROPONENT : MAGELLAN COGENERATION INC.
ROSARIO, CAVITE

General Data:

Cooperation Period				
Duration	yr		10	
Target/Actual Start Date			1-Apr-94	
Target/Actual End Date			31-Mar-04	
Contracted Capacity	MW		63	
No. of Units				
First Phase		6 x 8 MW		
Second Phase		3 x 5 MW		
Allowable Downtime				
1st five years	no. of days/unit		40	
2nd five years	no. of days/unit		45	
With Minimum Energy Offtake				
Generation Sale Price				
Rates:			$	PHP
Contract Capacity Fee	cost/kWh		0.02192	
Fixed Operating Fee	cost/kWh		0.00593	0.0837
Energy Fee	during testing only		0.00593	0.0837
Guaranteed Heat Rate, Kcal/kWh				
Tested Unit Heat Rate @ Net Contracted Capacity				

Fees Escalation Provision : To be applied to Capacity Fee and Operating Fee every

YEAR	$ to PHP	US Index[1]	Philippine Index[2]	Adjusted Rates Capacity	O & M	
Base Index	25 2	103.6	209.8			
1994	26.42	103.6	209.80	0.022981	0.00593	0.0837
1995	25 71	103.8	226.80	0.022364	0.005941	0.090482
1996	26.22	109.4	245.70	0.022807	0.006282	0.098022
1997	29 47	107.7	261.90	0.025634	0.006165	0.104485
1998	40 89	104.7	288.52	0.035566	0.005993	0.115105
1999	40	103.0	302.13	0.034794	0.005896	0.120535
2000	40	103 0	302.13	0.034794	0.005896	0.120535

1 US Export Price Index (excl. Agricultural products) taken from International Financial Statistics published by IMF
2 NEDA's Retail Price Index for all items in Metro Manila

Exchange Rate PHP/$ 40.00

YEAR	Period Start to Period End	Minimum Offtake	Guarantee Energy	No. of da per yea	Plant Availabl Energy (GWh	Capacity Fee ($ M)	Capacity Fee (PHP M)	Operating Fee ($ M)	Operating Fee (PHP M)	Total Fee Paymen ($ M)	Total Fee Paymen (PHP M)	Fuel Costs ($ M)	Fuel Costs (PHP M)	Total Cost ($ M)	Total Cost (PHP M)
1994	1 Apr. - 31 Dec.	241.86	241.86	275	155.72	5.56	-	0.92	13.03	6.48	13.03	3.715		10.20	13 03
1995	1 Jan. - 31 Dec.	348.34	348 34	365	310.17	7.79	-	1.84	28.06	9.63	28.06	7.401		17 03	28 06
1996	1 Jan. - 31 Dec.	343.29	343 29	365	305.67	7.83	-	1.91	29.98	9 74	29 96	7.293		17.04	29 96
1997	1 Jan. - 31 Dec.	337 77	337.77	365	300.75	8.66	-	1.85	31.42	10.51	31.42	7.176		17 69	31 42
1998	1 Jan. - 31 Dec	331 72	331.72	365	295 37	11 80	-	1 77	34.00	13.57	34.00	7 047		20 62	34 00
1999	1 Jan. - 31 Dec.	325 02	325.02	365	284.95	11.31	-	1.68	34 35	12 99	34.35	6.953		19 94	34 35
2000	1 Jan. - 31 Dec.	317.68	317.68	365	278.50	11.05	-	1.64	33.57	12.69	33.57	6.705		19.49	33.57
2001	1 Jan. - 31 Dec.	308.58	303.58	365	271.41	10.77	-	1.60	32.71	12.37	32.71	6.622		18.99	32.71
2002	1 Jan. - 31 Dec.	300.65	300.65	365	263.53	10.46	-	1.55	31.77	12.01	31.77	6.431		18.45	31.77
2003	1 Jan. - 31 Dec.	290.81	290.81	365	254.96	10.12	-	1.50	30.73	11.62	30.73	6.221		17.84	30.73
2004	1 Jan. - 31 Mar.	102.06	102.06	90	12.58	3.55	-	0.07	1.52	3.63	1.52	0.307		3.93	1.52
									NPV(2000)	42.91	93.14	21 86	0 00	64 76	93 14

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Appendix D Results of Financial Evaluation of Different Scenarios

NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT

		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1=Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	No	No	No	No	No	No	No	No	[redacted]
Incremental tariff from open access	0.30	-	-	-	-	-	-	-	-	
Central Least Cost Dispatch	(Yes or No)	No	No	No	No	No	No	No	No	No
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P/kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Assume working capital?	(Yes or No)	Given	No	No	No	No	No	No	No	No
Working capital assumptions:										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	No	No	No	No	No	No	No	No
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate:		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms:		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		1,513	(54)	(363)	(205)	21	26	76	(1,616)	(1,192)
Terminal Value		3,304	(66)	(804)	(72)	34	8	217	(2,146)	160
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	3.87%
Implied P EBITDA multiple of terminal value		6.0	21.4	(10.0)	42.3	5.1	0.2	5.7	21.73	2.0
Total Firm Value, US$ millions		4,817	(121)	(1,167)	(277)	55	34	292	(3,762)	(1,032)
Less:										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		4,817	(121)	(1,167)	(277)	55	34	292	(3,762)	(1,032)

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)	(1,183)
NPC Holdings Company	(3,762)
TRANSCO value	(1,032)
Privatization value, before unassigned debt	(5,977)
Market Value of unassigned NPC debt	(5,275)
Net privatization value, US$millions	(11,253)

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NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1-Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	No	No	No	No	No	No	No	No	[redacted]
Incremental tariff from open access	0.30	-	-	-	-	-	-	-	-	
Central Least Cost Dispatch	(Yes or No)	No	No	No	No	No	No	No	No	No
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P/kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Assume working capital?	(Yes or No)	Given	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Working capital assumptions:										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate:		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms:		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		1,513	(74)	(363)	(205)	21	26	76	(1,616)	(1,192)
Terminal Value		3,304	(85)	(804)	(72)	34	8	217	(2,146)	160
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	3.87%
Implied P/EBITDA multiple of terminal value		6.0	27.6	(10.0)	42.3	5.1	0.2	5.7	21.73	2.0
Total Firm Value, US$ millions		4,817	(159)	(1,167)	(277)	55	34	292	(3,762)	(1,032)
Less:										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		4,817	(159)	(1,167)	(277)	55	34	292	(3,762)	(1,032)

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)	(1,222)
NPC Holdings Company	(3,762)
TRANSCO value	(1,032)
Privatization value, before unassigned debt	(6,016)
Market Value of unassigned NPC debt	(5,275)
Net privatization value, US$millions	(11,291)

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NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT

		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1=Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	[redacted]
Incremental tariff from open access	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	[redacted]
Central Least Cost Dispatch	(Yes or No)	No	No	No	No	No	No	No	No	No
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P/kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Assume working capital?	(Yes or No)	Given	No	No	No	No	No	No	No	No
Working capital assumptions:										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	No	No	No	No	No	No	No	No
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate:		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms:		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		2,326	22	(159)	(150)	52	88	142	(1,436)	(1,192)
Terminal Value		4,156	18	(532)	(19)	75	70	296	(1,852)	160
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	3.87%
Implied P/EBITDA multiple of terminal value		5.8	1.4	(4.0)	(2.2)	5.2	1.3	5.6	43.86	2.0
Total Firm Value, US$ millions		6,482	40	(691)	(169)	128	158	438	(3,289)	(1,032)
Less:										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		6,482	40	(691)	(169)	128	158	438	(3,289)	(1,032)

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)	(96)
NPC Holdings Company	(3,289)
TRANSCO value	(1,032)
Privatization value, before unassigned debt	(4,417)
Market Value of unassigned NPC debt	(5,275)
Net privatization value, US$millions	(9,692)

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NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1=Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	[redacted]
Incremental tariff from open access	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	
Central Least Cost Dispatch	(Yes or No)	No	No	No	No	No	No	No	No	No
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P/kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Assume working capital?	(Yes or No)	Given	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Working capital assumptions:										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate:		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms:		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		2,326	3	(159)	(150)	52	88	142	(1,436)	(1,192)
Terminal Value		4,156	(1)	(532)	(19)	75	70	296	(1,852)	160
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	3.87%
Implied P/EBITDA multiple of terminal value		5.8	(0.1)	(4.0)	(2.2)	5.2	1.3	5.6	43.86	2.0
Total Firm Value, US$ millions		6,482	1	(691)	(169)	128	158	438	(3,289)	(1,032)
Less:										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		6,482	1	(691)	(169)	128	158	438	(3,289)	(1,032)

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)	(134)
NPC Holdings Company	(3,289)
TRANSCO value	(1,032)
Privatization value, before unassigned debt	(4,455)
Market Value of unassigned NPC debt	(5,275)
Net privatization value, US$millions	(9,731)

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NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT

		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1=Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	No	No	No	No	No	No	No	No	[redacted]
Incremental tariff from open access	0.30	-	-	-	-	-	-	-	-	
Central Least Cost Dispatch	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P/kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Assume working capital?	(Yes or No)	Given	No	No	No	No	No	No	No	No
Working capital assumptions:										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	No	No	No	No	No	No	No	No
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate:		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms:		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		1,709	39	(148)	(166)	42	38	76	(1,459)	(711)
Terminal Value		3,532	195	(550)	(17)	60	23	217	(1,842)	2,442
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	8.21%
Implied P/EBITDA multiple of terminal value		6.0	4.3	(4.2)	(1.8)	4.7	0.5	5.7	49.07	15.3
Total Firm Value, US$ millions		5,241	234	(698)	(183)	102	61	292	(3,301)	1,732
Less:										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		5,241	234	(698)	(183)	102	61	292	(3,301)	1,732

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)		(191)
NPC Holdings Company	(3,301)	
TRANSCO value	1,732	
Privatization value, before unassigned debt		(1,761)
Market Value of unassigned NPC debt		(5,275)
Net privatization value, US$millions		(7,036)

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NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT

		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1=Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	No	No	No	No	No	No	No	No	[redacted]
Incremental tariff from open access	0.30	-	-	-	-	-	-	-	-	
Central Least Cost Dispatch	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P/kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Assume working capital?	(Yes or No)	Given	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Working capital assumptions:										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate:		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms:		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		1,709	20	(148)	(166)	42	38	76	(1,459)	(711)
Terminal Value		3,532	176	(550)	(17)	60	23	217	(1,842)	2,442
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	8.21%
Implied P/EBITDA multiple of terminal value		6.0	3.8	(4.2)	(1.8)	4.7	0.5	5.7	49.07	15.3
Total Firm Value, US$ millions		5,241	196	(698)	(183)	102	61	292	(3,301)	1,732
Less:										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		5,241	196	(698)	(183)	102	61	292	(3,301)	1,732

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)	(230)
NPC Holdings Company	(3,301)
TRANSCO value	1,732
Privatization value, before unassigned debt	(1,799)
Market Value of unassigned NPC debt	(5,275)
Net privatization value, US$millions	(7,075)

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NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1 =Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	[redacted]
Incremental tariff from open access	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	
Central Least Cost Dispatch	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Assume working capital?	(Yes or No)	Given	No	No	No	No	No	No	No	No
Working capital assumptions:										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	No	No	No	No	No	No	No	No
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate:		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms:		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		2,717	138	107	(100)	85	104	142	(1,221)	(711)
Terminal Value		4,629	335	(216)	52	116	89	296	(1,427)	2,442
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	8.21%
Implied P EBITDA multiple of terminal value		5.8	4.6	(1.1)	2.3	4.9	1.6	5.6	(33.50)	15.3
Total Firm Value, US$ millions		7,345	473	(109)	(48)	201	192	438	(2,649)	1,732
Less										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		7,345	473	(109)	(48)	201	192	438	(2,649)	1,732

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)	1,148
NPC Holdings Company	(2,649)
TRANSCO value	1,732
Privatization value, before unassigned debt	231
Market Value of unassigned NPC debt	(5,275)
Net privatization value, US$millions	(5,044)

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NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT

		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1 =Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	[redacted]
Incremental tariff from open access	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	
Central Least Cost Dispatch	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1 80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Assume working capital?	(Yes or No)	Given	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Working capital assumptions:										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate:		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3 0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms:		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		2,717	119	107	(100)	85	104	142	(1,221)	(711)
Terminal Value		4,629	316	(216)	52	116	89	296	(1,427)	2,442
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	8.21%
Implied P EBITDA multiple of terminal value		5.8	4.4	(1.1)	2.3	4.9	1.6	5.6	(33.50)	15.3
Total Firm Value, US$ millions		7,345	435	(109)	(48)	201	192	438	(2,649)	1,732
Less:										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		7,345	435	(109)	(48)	201	192	438	(2,649)	1,732

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)	1,109
NPC Holdings Company	(2,649)
TRANSCO value	1,732
Privatization value, before unassigned debt	192
Market Value of unassigned NPC debt	(5,275)
Net privatization value, US$millions	(5,083)

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NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1 =Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	No	No	No	No	No	No	No	No	[redacted]
Incremental tariff from open access	0.30	-	-	-	-	-	-	-	-	
Central Least Cost Dispatch	(Yes or No)	No	No	No	No	No	No	No	No	No
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P/kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Assume working capital?	(Yes or No)	Given	No	No	No	No	No	No	No	No
Working capital assumptions:										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	No	No	No	No	No	No	No	No
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate:		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms:		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		1,459	(89)	(449)	(205)	21	26	69	(1,679)	(1,192)
Terminal Value		3,336	(69)	(813)	(72)	34	8	215	(2,156)	160
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	3.87%
Implied P/EBITDA multiple of terminal value		6.0	22.4	(10.1)	42.3	5.1	0.2	5.7	21.83	2.0
Total Firm Value, US$ millions		4,795	(159)	(1,262)	(277)	55	34	284	(3,835)	(1,032)
Less:										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		4,795	(159)	(1,262)	(277)	55	34	284	(3,835)	(1,032)

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)	(1,324)
NPC Holdings Company	(3,835)
TRANSCO value	(1,032)
Privatization value, before unassigned debt	(6,191)
Market Value of unassigned NPC debt	(5,275)
Net privatization value, US$millions	(11,467)

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NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1=Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	[redacted]
Incremental tariff from open access	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	
Central Least Cost Dispatch	(Yes or No)	No	No	No	No	No	No	No	No	No
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P/kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Assume working capital?	(Yes or No)	Given	No	No	No	No	No	No	No	No
Working capital assumptions:										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	No	No	No	No	No	No	No	No
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		2,226	(22)	(268)	(150)	52	88	133	(1,518)	(1,192)
Terminal Value		4,222	14	(542)	(19)	75	70	294	(1,864)	160
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	3.87%
Implied P/EBITDA multiple of terminal value		5.8	1.1	(4.1)	(2.2)	5.2	1.3	5.5	44.13	2.0
Total Firm Value, US$ millions		6,448	(7)	(810)	(169)	128	158	427	(3,381)	(1,032)
Less:										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		6,448	(7)	(810)	(169)	128	158	427	(3,381)	(1,032)

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)	(273)
NPC Holdings Company	(3,381)
TRANSCO value	(1,032)
Privatization value, before unassigned debt	(4,687)
Market Value of unassigned NPC debt	(5,275)
Net privatization value, US$ millions	(9,96[illegible]

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NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT

		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1 - Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	[redacted]
Incremental tariff from open access	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	
Central Least Cost Dispatch	(Yes or No)	No	No	No	No	No	No	No	No	No
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P/kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Assume working capital?	(Yes or No)	Given	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Working capital assumptions:										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate:		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms:		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		2,226	(41)	(268)	(150)	52	88	133	(1,518)	(1,192)
Terminal Value		4,222	(5)	(542)	(19)	75	70	294	(1,864)	160
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	3.87%
Implied P/EBITDA multiple of terminal value		5.8	(0.4)	(4.1)	(2.2)	5.2	1.3	5.5	44.13	2.0
Total Firm Value, US$ millions		6,448	(46)	(810)	(169)	128	158	427	(3,381)	(1,032)
Less:										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		6,448	(46)	(810)	(169)	128	158	427	(3,381)	(1,032)

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)		(312)
NPC Holdings Company		(3,381)
TRANSCO value		(1,032)
Privatization value, before unassigned debt		(4,725)
Market Value of unassigned NPC debt		(5,275)
Net privatization value, US$millions		(10,001)

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NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT

		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1=Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	No	No	No	No	No	No	No	No	[redacted]
Incremental tariff from open access	0.30	-	-	-	-	-	-	-	-	[redacted]
Central Least Cost Dispatch	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P/kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Assume working capital?	(Yes or No)	Given	No	No	No	No	No	No	No	No
Working capital assumptions:										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	No	No	No	No	No	No	No	No
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate:		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms:		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		1,714	63	(148)	(162)	43	37	79	(1,408)	(711)
Terminal Value		3,563	190	(549)	15	86	38	216	(1,829)	2,442
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	8.21%
Implied P/EBITDA multiple of terminal value		6.0	4.1	(4.2)	1.6	6.7	0.9	5.7	48.74	15.3
Total Firm Value, US$ millions		5,277	253	(697)	(148)	129	75	295	(3,237)	1,732
Less:										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		5,277	253	(697)	(148)	129	75	295	(3,237)	1,732

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)	(94)
NPC Holdings Company	(3,237)
TRANSCO value	1,732
Privatization value, before unassigned debt	(1,599)
Market Value of unassigned NPC debt	(5,275)

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NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT

		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1 =Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	No	No	No	No	No	No	No	No	[redacted]
Incremental tariff from open access	0.30	-	-	-	-	-	-	-	-	
Central Least Cost Dispatch	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P/kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Assume working capital?	(Yes or No)	Given	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Working capital assumptions										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate:		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms:		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		1,714	26	(132)	(166)	42	38	77	(1,459)	(711)
Terminal Value		3,563	176	(549)	(17)	60	23	217	(1,842)	2,442
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	8.21%
Implied P EBITDA multiple of terminal value		6.0	3.8	(4.2)	(1.8)	4.7	0.5	5.7	49.07	15.3
Total Firm Value, US$ millions		5,277	202	(682)	(183)	102	61	294	(3,301)	1,732
Less:										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		5,277	202	(682)	(183)	102	61	294	(3,301)	1,732

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)	(206)
NPC Holdings Company	(3,301)
TRANSCO value	1,732
Privatization value, before unassigned debt	(1,775)
Market Value of unassigned NPC debt	(5,275)
Net privatization value, US$millions	(7,050)

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NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT

		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1 =Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	[redacted]
Incremental tariff from open access	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	
Central Least Cost Dispatch	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P/kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Assume working capital?	(Yes or No)	Given	No	No	No	No	No	No	No	No
Working capital assumptions:										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	No	No	No	No	No	No	No	No
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate:		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms:		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		2,725	144	122	(100)	85	104	143	(1,221)	(711)
Terminal Value		4,694	336	(215)	52	116	89	296	(1,127)	2,442
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	8.21%
Implied P/EBITDA multiple of terminal value		5.8	4.6	(1.1)	2.3	4.9	1.6	5.6	(33.50)	15.3
Total Firm Value, US$ millions		7,420	480	(93)	(48)	201	192	439	(2,649)	1,732
Less:										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		7,420	480	(93)	(48)	201	192	439	(2,649)	1,732

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)	1,172
NPC Holdings Company	(2,649)
TRANSCO value	1,732
Privatization value, before unassigned debt	255
Market Value of unassigned NPC debt	(5,275)
Net privatization value, US$millions	(5,020)

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NPC VALUATION: SUMMARY OF ASSUMPTIONS/RESULT		NPC-whole	Genco 1	Genco 2	Genco 3	Genco 4	Genco 5	Genco 6	NPC Hldgs	Transco
Macroeconomic										
US Inflation		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Philippine Inflation:		6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
Exchange rate: US$1 =Php		40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Financial:										
Years tax holiday		0	0	0	0	0	0	0	0	0
Income tax rate		32%	32%	32%	32%	32%	32%	32%	32%	32%
Policy:										
Open Access	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	[redacted]
Incremental tariff from open access	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	
Central Least Cost Dispatch	(Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tariff on incremental sales (NPC's Energy Charge)		1.80	2.00	2.00	1.75	2.00	1.50	2.00	1.80	[redacted]
Tariffs:										
Regulated or competitive tariffs?		Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Competitive	Regulated
Projected long-term competitive tariff, P/kwh	$0.045	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	[redacted]
Free-cash flows:										
Normal or Reduced		Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Assume working capital?	(Yes or No)	Given	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Working capital assumptions:										
Days Receivable	45	Given	45	45	45	45	45	45	45	45
Days Payable	45	Given	45	45	45	45	45	45	45	45
Days Fuel Inventory	60	Given	60	60	60	60	60	60	60	n.a.
Assume Capital Expenditure?	(Yes or No)	Given	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DCF Valuation										
Base case WACC:										
Nominal US$ discount rate:		16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	14.2%
Less: US inflation rate		-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%
Discount rate in real terms:		13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%	11.2%
Present value, Free Cash Flows		2,725	125	122	(100)	85	104	143	(1,221)	(711)
Terminal Value		4,694	317	(215)	52	116	89	296	(1,427)	2,442
Perpetuity growth rate assumption		0%	0%	0%	0%	0%	0%	0%	0%	8.21%
Implied P/EBITDA multiple of terminal value		5.8	4.4	(1.1)	2.3	4.9	1.6	5.6	(33.50)	15.3
Total Firm Value, US$ millions		7,420	441	(93)	(48)	201	192	439	(2,649)	1,732
Less:										
Market Value of assigned NPC debt										
Present value of IPP obligations (debt service component only)										
Value of Equity, before unassigned debt		7,420	441	(93)	(48)	201	192	439	(2,649)	1,732

Total Genco equity value, before unassigned debt (excluding NPC Holdings company)	1,134
NPC Holdings Company	(2,649)
TRANSCO value	1,732
Privatization value, before unassigned debt	217
Market Value of unassigned NPC debt	(5,275)
Net privatization value, US$millions	(5,05[illegible]

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