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IMPLEMENTATION COMPLETION REPORT
(03380; 03990; 38120)

ON A

LOAN

IN THE AMOUNT OF US$250 MILLION

TO THE

ISLAMIC REPUBLIC OF PAKISTAN

FOR A

SECOND PRIVATE SECTOR ENERGY DEVELOPMENT PROJECT

May 11, 2001

Energy Sector Unit
South Asia Region

CURRENCY EQUIVALENTS
(Exchange Rate Effective December 31, 2000)

Currency Unit	=	Rupees (Rs.)
Rs 1	=	US$ 0.02
US$ 1	=	Rs 58.15

FISCAL YEAR
July 1 June 30

ABBREVIATIONS AND ACRONYMS

APL	Asia Petroleum Limited
CDC	Commonwealth Development Corporation of the United Kingdom
COD	Commercial Operations Date
COFACE	Compagnie Francaise d'Assurance pour le Commerce Exterieur (France's export credit agency)
DFID	Department for International Development (UK)
EAD	Economic Affairs Division, Ministry of Finance
ECAs	Export Credit Agencies
ECO	Expanded Cofinancing Operation
ESBI	Electricity Supply Board International (Ireland)
EPC	Engineering, Procurement and Construction
FSA	Fuel Supply Agreement
GOP	Government of Pakistan
HUBCO	Hub Power Company Limited
IA	Implementation Agreement
ICB	International Competitive Bidding
IDC	Interest during Construction
IFC	International Finance Corporation
IPP	Independent Power Producer
IRR	Internal Rate of Return
JBIC	Japan Bank for International Cooperation
JEXIM	The Export Import Bank of Japan (now referred to as Japan Bank for International Cooperation.
KESC	Karachi Electric Supply Company
kW	Kilo Watt
kWh	Kilo watt hour
LOI	Letter of Intent
LOS	Letter of Support
LTCF	Long Term Credit Fund (the "Fund", formerly known as the Private Sector Energy Development Fund)

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Country Director:	John W. Wall
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MMCFD	Million Cubic Feet per Day
MITI	Ministry of International Trade and Industry of Japan
MOF	Ministry of Finance
MOU	Memorandum of Understanding
MPNR	Ministry of Petroleum and Natural Resources
MW	Mega Watt (one million watts)
MWP	Ministry of Water and Power
NEPRA	National Electric Power Regulatory Authority
NDFC	National Development Finance Corporation (Administrator of the LTCF)
O&M	operations and maintenance
ODA	Overseas Development Administration (UK)
OGDC	Oil and Gas Development Corporation
PED	Private Energy Division of NDFC
PPA	Power Purchase Agreement
PPC	Private Power Cell
PPIB	Private Power and Infrastructure Board
PRG	Partial Risk Guarantee
PSEDP	*Private Sector Energy Development Project*
PSO	Pakistan State Oil
QAG	Quality Assurance Group
RPPL	Rousch (Pakistan) Power Limited
SACE	Sezione Speciale per l'Assicurazione del Credito all'Esportazione (Italy's export credit agency)
SEPCOL	Southern Electric Power Company Limited
SNGPL	Sui Northern Gas Pipelines Limited
UPL	Uch Power Limited
USAID	United States Agency for International Development
WAPDA	Water and Power Development Authority
WPPO	WAPDA's Private Power Organization

PAKISTAN
Second Private Sector Energy Development Project

CONTENTS

NOTE: The main text is identical for the intensive learning ICRs prepared for the Pakistan Private Sector Energy Development Project (Ln. 2982) and the follow-on, Second Private Sector Energy Development Project (Ln. 3812). The first project was extended to be co-terminus with the second, and the loan agreement 2982-PAK was amended to match that of Ln. 3812-PAK. In particular, the implementation program as well as the procedure for and terms and conditions of subloans under the first Project were amended to be consistent with the second Project. Therefore, while two separate ICRs are produced, the text is identical while the project data, ratings, and statistical annexes are specific for each project.

Various sections of this report draw extensively on previous analytical work and internal memoranda prepared by Bank staff and consultants in the Energy Network and the South Asia Energy Unit on the Pakistan energy sector portfolio, the dialogue on the power sector reform program, and the private power program during 1998-2000, in addition to the report by M. Gerrard titled "Financing Pakistan's Hub Power Project: A Review of Experience for Future Projects" dated August 1997, sponsored by the Project Finance and Guarantees Department.

Project ID: P010450	*Project Name:* PRIVATE SECTOR ENERGY DEVELOPMENT II
Team Leader: Julia M. Fraser	*TL Unit:* SASIN
ICR Type: Intensive Learning Model (ILM) of ICR	*Report Date: May 11, 2001*

1. Project Data

Name: PRIVATE SECTOR ENERGY DEVELOPMENT II *L/C/TF Number:* 03380; 03990; 38120
Country/Department: PAKISTAN *Region:* South Asia Regional Office
Sector/subsector: PD - Distribution & Transmission

KEY DATES

			Original	*Revised/Actual*
PCD:	04/29/94	*Effective:*	01/19/95	
Appraisal:	04/29/94	*MTR:*		
Approval:	11/29/94	*Closing:*	12/31/99	06/30/2000

Borrower/Implementing Agency: Government of Pakistan/National Development Finance Corporation
Other Partners: The Export Import Bank of Japan

STAFF	Current	At Appraisal
Vice President:	Mieko Nishimizu	D. Joseph Wood
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2. Principal Performance Ratings

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HL=Highly Likely, L=Likely, UN=Unlikely, HUN=Highly Unlikely, HU=Highly Unsatisfactory, H=High, SU=Substantial, M=Modest, N=Negligible)

Outcome: U
Sustainability: UN
Institutional Development Impact: N
Bank Performance: U
Borrower Performance: U

	QAG (if available)	ICR
Quality at Entry:	S	U
Project at Risk at Any Time:	Yes	

3. Assessment of Development Objective and Design, and of Quality at Entry

3.1 Original Objective:

3.1.1 Until 1988, the Bank had been involved in Pakistan's power sector primarily through lending to the two government utilities, the Karachi Electric Supply Company (KESC) and the Water and Power Development Authority (WAPDA). In 1988, economic growth remained constrained due to severe power shortages. It was estimated that during the Seventh Five-Year Plan (1989-93), 6,300 MW of additional generating capacity would be required, of which the public sector would only be able to construct 4,000 MW. Hence, it was proposed that 2,300 MW be built by the private sector during the Seventh Plan and, similarly, an additional 2,400 MW during the Eighth Plan (1994-98).

3.1.2 The objectives of the first Private Sector Energy Development Project (PSEDP I), approved in June 1988, were to: (i) assist Pakistan in mobilizing, from the private sector, the resources required to meet the anticipated deficit in power supply; (ii) establish incentives to encourage private sector participation; and (iii) establish an institutional framework required to facilitate private sector transactions in energy on a sustainable basis. The Second Private Sector Energy Development Project (PSEDP II), approved in November 1994, replenished the Long Term Credit Fund (originally known as the Private Sector Energy Development Fund) established under the first project (PSEDP I) with the objective of continuing to (i) assist the Government in mobilizing additional private sector resources; and (ii) build on the institutional and policy framework established to facilitate private sector participation in the energy sector.

3.1.3 The objectives were clear and were not modified during project implementation. The objectives were also consistent with the Government's strategy to encourage a greater role for the private sector in energy. However, the power shortage on which the private power program was predicated was due in large part to policy and institutional failures. Looking back, low average prices of electricity, cross subsidization of residential and agricultural consumers, weak payment discipline and widespread theft of electricity (unaccounted for electricity was estimated to be as high as 35 percent rather than the officially recorded 26 percent) exaggerated the shortage of electricity supply.

3.1.4 In many respects, the agenda for reform outlined in the strategy was well ahead of its time. Although the international development community had come to realize that the role of the public sector needed to be redefined and reduced, no other low-income country had made private investments a corner stone of its energy policy. This strategy was a reflection of hard economic realities: a non-sustainable fiscal deficit; a serious balance of payment situation; and the inability of the public sector to mobilize the funds required to make the investments needed to keep pace with power demand (which was growing around seven percent per year). However, even if sound demand management policies had reduced the growth of electricity demand below seven percent, the Government's strategy to rely increasingly on private investment in power was relevant as budgetary resources were needed to meet Pakistan's pressing social needs. The Projects were designed to support the implementation of a program of agreed measures that consisted of: (a) policies for the promotion of private sector investment in energy; (b) creation of a vehicle to provide long-term financing for private energy projects; and (c) establishment of new institutions for the evaluation, negotiation, and approval of private energy investments.

3.1.5 These two Projects were innovative and represented a major shift in the Bank's power sector lending policies. The Projects embedded the lessons drawn from Bank lending to government utilities, as reflected in the Policy Paper entitled "Bank Lending for Electric Power" (1993). The Projects, however, were demanding as they required *inter alia*: (a) the Government and its agencies to learn and adapt policies to enable private sector transactions in power; (b) the creation of three new entities - (i) the Private Power and Infrastructure Board (PPIB) in charge of negotiating the contractual framework (referred to as the Security Package) on behalf of the Government; (ii) WAPDA Private Power Organization (WPPO) in

charge of negotiating the power purchase agreements (PPA); and (iii) the Private Energy Division (PED) of the National Development Finance Corporation (NDFC) in charge of administering the funds under the two Bank loans (referred to as the Long Term Credit Fund - LTCF or the Fund); and (c) the power utility, WAPDA, to abandon its virtual monopoly on power generation, and adjust its activities including purchasing power from plants it did not own.

3.2 Revised Objective:
n/a

3.3 Original Components:
3.3.1 In refining and implementing the private sector energy strategy, the Government relied primarily on the advice of the Bank and a consulting firm (with the US Agency for International Development support). Three constraints to greater private sector energy investments were identified: (a) the absence of a comprehensive policy framework concerning incentives, fiscal treatment, repatriation of profits and capital, availability of foreign exchange, and pricing; (b) the lack of long term financing for projects with long gestation periods and economic life; and (c) the inadequacy of the institutional arrangements for the review, negotiation and approval of private sector projects.

3.3.2 An initial framework of incentives to attract private investment in the energy sector was put in place in 1988 which addressed these constraints under the Private Sector Energy Development Project (PSEDP I). In addition to these incentives, a new lending facility--the Private Sector Energy Development Fund which was later renamed the Long Term Credit Fund (LTCF or the Fund)--was established under PSEDP I to finance private energy investments. The Fund provided long term subordinated debt financing up to 23 years, including eight years grace - tenors which were previously unavailable in Pakistan but necessary for power and other energy projects with long economic lives. The Fund was created to bridge the gap in the financial intermediation system of Pakistan. The purpose of this arrangement was to provide security and comfort to commercial lenders to encourage them to finance the projects as well. The Fund is administered by the National Development Finance Corporation (NDFC) on behalf of the Government.

3.3.3 During the preparation and appraisal of PSEDP I, it was thought that private sector resources for financing the energy sector needed to materialize more or less immediately in order to avoid jeopardizing the achievement of the objectives of the Seventh Plan which, in turn, necessitated the immediate establishment of the Fund as a functional unit of an existing financial institution. It was to act as the focal point for mobilizing financing from bilateral and multilateral agencies and, as its financial strengths developed, gradually seek commercial loans in the market, securing them against the strength of its balance sheet. The Government had designated NDFC to administer the Fund although the latter's operations were to be structured to allow for possible detachment from NDFC at a later date. As such the Fund was set up as a self-contained unit within NDFC--the Private Energy Division--which was expected to reach its own independent decision as to the technical and financial viability of subprojects presented for financing, after they had been approved by Private Power Cell of the Ministry of Water and Power (MWP). During the appraisal of PSEDP II, it was recognized that the Fund's continued presence in NDFC was leading to its bureaucratic absorption as another arm of the public sector, and as such, the process of detaching the Fund from NDFC was to begin with the effectiveness of PSEDP II. In fact, this was made a dated covenant although no real progress was made in detaching the Fund from NDFC. In addition, no additional resources were mobilized for the Fund beyond those provided by the initial financiers of PSEDP I and II.

3.3.4 During the negotiation for the Hub Project (the sole subproject financed under PSEDP I) and the preparation of PSEDP II, the Government recognized the need to fine-tune the incentive framework to take

into account the feedback received from private investors and the international financial community. Refinements in the framework were also needed to make Pakistan internationally competitive in attracting financial resources, and to integrate these measures with the actions taken by the Government to deregulate the economy and increase reliance on the private sector. The result was a new policy for private power ("Policy Framework and Package of Incentives for Private Sector Power Generation Projects in Pakistan"), promulgated in March 1994 (hereto referred to as the 1994 Private Power Policy), which incorporated the original policies introduced in 1988 together with subsequent modifications as detailed in Box 1 below. The above policy, which was supported under the Second Private Sector Energy Development Project (Ln. 3812-PAK), was successful in attracting an additional 19 private power projects, totaling over 3,000 MW.[1]

Box 1:
Salient Features of 1994 Policy and Package of Incentives for Private Sector Power Generation

- Bulk Tariff of US¢ 6.5/kWh[a/] (to be paid in Rs.) for sale of electricity to WAPDA/KESC, with indexation mechanism for fuel price, US and Pakistani inflation, exchange rate, O&M costs, and others;

- Fiscal Incentives consisting of: exemption from corporate income tax, customs duties, sales tax, and other surcharges on imported equipment;

- Standardized Security Package which includes a model Implementation Agreement, Power Purchase Agreement and Fuel Supply Agreement;

- Creation of a Private Power Board, so as to facilitate one window operation; and

- Financial incentives to facilitate the creation of a corporate securities market in the country, including permission for power generation companies to issue corporate bonds and shares at discounted prices, and establishment of an Independent Rating Agency.

a/ The bulk tariff was later reduced to US¢ 6.1/kWh with the elimination of the foreign exchange risk insurance scheme.

Source: Pakistan Energy Options Study, Report No. 14025-PAK, June 15, 1995

3.3.5 PSEDP I and II each consisted of two components: (i) investment sub-projects and (ii) institution building. They provided for the financing of subordinated debt to private energy companies, together with technical assistance to government entities implementing the private power policy. They were successful in mobilizing considerable cofinancing for the Long Term Credit Fund as reflected in Table 1 below.

Table 1
Long Term Credit Fund
Co-financing Funds Mobilized for Private Energy Projects under PSEDP I and PSEDP II
(US$ million equivalent)

	PSEDP I Ln. 2982		PSEDP II Ln. 3812		Total
IBRD	150	[1,3]	250	[2]	400
JEXIM	150	[3]	250		400
Government of Italy	49	[3]	-		50
Government of France	29	[3]	10	[3]	39
US Eximbank	12	[3]	97	[4]	110
Bank of China	-		80	[4]	80
TOTAL	**390**		**687**		**1,077**

(These figures do not include other debt and equity mobilized for the sub-projects financed under PSEDP I and II.)

[1] Of which $4 million is for technical assistance.
[2] Of which $6 million is for technical assistance.
[3] Funds used exclusively for the 1292 MW Hub Power Project.
[4] Funds contributed exclusively for the 586 MW Uch Power Project.

3.3.6 The Bank and JEXIM each contributed US$400 million to the Long Term Credit Fund, and other bi-lateral agencies together contributed over US$600 million equivalent. Five sub-projects (one pipeline and four power projects) were financed under PSEDP I and II. It was anticipated--given the Fund's ceiling of 30 percent financing per subproject--that Pakistan would be able to mobilize at least US$1.9 billion under PSEDP I and US$1.2 billion under PSEDP II, targets which were vastly exceeded in reality as overall private sector investments in power over 1990-99 have been in excess of US$5 billion (four out of twenty private power plants utilized LTCF financing).ccc

3.3.7 Recognizing the complexity of project finance, the two loans also provided for a considerable amount of technical assistance to two new units: (i) the Private Power Cell (PPC), located in Islamabad, to evaluate and negotiate proposals on behalf of the Government (PPC was converted in 1994 into the Private Power and Infrastructure Board - (PPIB), a "single stop investment window" with full responsibility for negotiating power investments); and (ii) the Private Energy Division (PED), a unit of the National Development Finance Corporation (NDFC), located in Karachi, and entrusted with the administration of the LTCF.

3.3.8 In all, the design of the project was consistent with its objectives.

3.4 Revised Components:

3.5 Quality at Entry:

3.5.1 The Quality Assurance Group (QAG) made a post-approval Quality at Entry assessment of PSEDP II in mid-1997 as part of a QAG review of South Asia Private Sector Infrastructure Development Operations. QAG rated the Project as fully satisfactory on account of its many innovative and groundbreaking features that have been a model for other countries. The report recognized the "pioneer" features of these types of operations "not only for the country but for the Bank", and that these funds "can be valuable instruments for encouraging private participation in infrastructure" provided there is strong government commitment to reform. Their importance in helping to develop local capital markets was also recognized.

3.5.2 However, the QAG panel did not identify flaws which have been present in the financial structure of both PSEDP I and II from the outset. Most notably, in arriving at their "fully satisfactory" assessment, the QAG panel remarked that "the appointment of competent fund managers...[is] an important factor in the success." In fact, the LTCF has never been managed as a fund and does not have the operational structures to respond to events. The panel failed to notice the substantial asset/liability mismatches in the Fund, which could then have been partially offset through conversion to a single currency loan. In addition, the panel did not recognize that NDFC was essentially insolvent and dependent upon the LTCF for liquidity, a weakness in NDFC which should have been apparent at the time.

3.5.3 While the panel commented upon the delays in converting LTCF to an "autonomous, commercially oriented" entity, even noting that the fulfillment of this covenant was already more than two and a half years overdue, the panel should also have identified the absence of a realistic "sunset" plan for LTCF. In reality, the outline for the future of the Fund was vague, and there was no work undertaken to advise a more suitable structure or develop a timeline to implementation. The QAG panel, similar to the Bank's appraisal teams, did not include a finance expert (as distinct from a financial analyst) to examine the financial structuring aspects and implications of the Projects.

3.5.4 With hindsight, the Projects, while being highly innovative, were a high-risk activity that has now turned out to have significant shortcomings. Other weaknesses at entry identified by QAG resulted in a much larger negative impact than foreseen at the time of the QAG review. These included: (i) inadequate analysis of IPPs' impact on WAPDA's finances, (ii) inadequate review of the Government's thermal power policy which may have revealed the need to limit the amount of new capacity; (iii) not enough emphasis on social consequences and affordability of private power generation; and (iv) no technical specialist on the team to focus on location of IPPs and choice of technology. Under the circumstances and in retrospect, the Projects are rated unsatisfactory in terms of quality at entry.

4. Achievement of Objective and Outputs

4.1 Outcome/achievement of objective:

4.1.1 Although originally intended to finance several subprojects, PSEDP I focused on one very large transaction—the 1,292 MW Hub Power subproject. (Annex 10 describes the five subprojects financed under PSEDP I and II.) The Hub transaction required over six years from the detailed feasibility study (April 1988) to financial closure (January 1995). This subproject paved the way for private power projects internationally, and the complex documentation it generated is used to this date as a reference for such transactions worldwide. Furthermore, the transaction also involved for the first time the utilization of a new Bank instrument for power projects, the Partial Risk Guarantee, under which the Bank backstops

certain undertakings given by the Government. Thus, the LTCF loan of US$616 million[2] enabled the mobilization of another US$1.2 billion in the form of equity and debt. Subsequently, under PSEDP II, three more power plants were partially financed by the LTCF involving approximately 1,100 MW with a total investment cost of US$1.3 billion. LTCF, which was initially intended to also support subprojects other than power plants, helped finance a pipeline connecting an oil storage depot with the Hub power plant. More importantly, the framework which evolved under the Bank projects enabled the financing and construction of an additional 16 power plants involving an additional generating capacity of 2,350 MW with a total investment cost of almost US$2.5 billion. Thus, the physical outcomes are consistent with the initial targets for private power set under the Seventh Plan (2,300 MW) and the Eighth Plan (2,400 MW).

4.1.2 In the case of NDFC, the administrator of LTCF, and PPIB, the one-stop shop for private investors, solid expertise was developed in private power transactions although most of the qualified staff subsequently left. While Pakistan created institutional capacity to approve IPPs, WAPDA did not develop the institutional capability required to manage their new commercial contracts.

4.1.3 Unfortunately, the implementation of the private power program under PSEDP I and II experienced difficulties which negatively impacted the Projects' ability to achieve their objectives and/or sustainable results. (PSEDP I is included in the analysis of the 1994 private power program, even though it was designed prior, since the implementation program, evaluation criteria, as well as the procedure for and terms and conditions of subloans were amended to match that of PSEDP II.) Implementation difficulties included the following:

- The selection criteria under the 1994 Policy enabled the implementation of many subprojects which are not consistent with the least-cost expansion program in terms of (i) capacity (too small given the system size and requirements); (ii) fuel selection (excessive reliance on imported fuel oil, as opposed to domestic natural gas although at the time gas allocation for power was difficult to secure and overall gas reserves were thought to be on the decline[3]); and (iii) technology (too many diesel sets and steam turbines, as opposed to efficient combined cycle plants). The 1994 IPP Policy did not provide an incentive for project promoters to reduce costs, and the tariff for virtually every IPP reached the bulk tariff ceiling set under the Policy, regardless of technology. This resulted in relatively high project costs with a high proportion of "soft" costs (i.e. project development costs and financing costs). In addition, the incentives provided by the 1994 Policy, particularly the price of electricity and the Government's guarantees, proved with hindsight to be too generous as reflected in the overwhelming response from the private sector. Although GOP had intended to review the bulk tariff annually, it never did so.

- The pace of the private power program was faster than the restructuring and privatization of WAPDA and the creation of a suitable regulatory system. The mix of private generation and monopoly public sector transmission/distribution, and the introduction of private power under the 1994 IPP Policy (see para. 3.3.4), has rendered the sector vulnerable to financial shocks and external events such as changes in fuel prices. While the Bank promoted measures for sector management and restructuring, as well as public sector policy reforms, including introduction of pass-through mechanisms for cost of fuel and power purchased, they were not implemented at the intended pace. The delays in sector reforms adversely impacted the efficiency of both WAPDA and the IPP program, and left the sector overly vulnerable to economic downturns.

- The demand for power increased at a slower pace than anticipated resulting in excess capacity in the system for which WAPDA has to pay capacity charges under long term power purchase agreements (PPAs).[4] Despite the Bank's caution to limit the new policy to about 2,000 MW of additional capacity and the advice to switch to a competitive bidding process thereafter, GOP issued Letters of Support to projects for more than 9,000 MW. Ultimately, 19 IPPs totaling about 3,100 MW reached financial close. (This figure does not include Hub, which was negotiated prior to the 1994 Policy.)

- A new government in 1997 alleged that private power transactions involved corruption money, and took legal and other measures against subproject sponsors. This resulted in costly delays in the commissioning of some of the power plants, renegotiations of contracts, and reductions in sale tariffs. While most IPPs were willing to renegotiate tariffs, given the precarious financial condition of WAPDA and Pakistan, the Government's approach was perceived to be heavy-handed and coercive and nearly led to government guarantees being called and a financial default by Pakistan. These perceptions also destroyed investor confidence in Pakistan, and foreign investment flowed to a trickle exacerbating the recent economic crisis.

- The institutional framework has demonstrated that it is capable of processing an impressive number of transactions over a short period. Unfortunately, NDFC, PPIB and WPPO were subject to considerable political interference, and a high staff turnover at the managerial level (between four and eight Managing Directors in each of the three organizations over an eight-year period). In addition, most of the key staff in NDFC and PPIB, who had developed significant expertise under the implementation of PSEDP I and II, are no longer employed by these agencies. Furthermore, one unit or another was sidelined through political decisions at various times throughout implementation.

- The financial framework for LTCF is in a state of flux - which is exacerbated by NDFC "capturing" the Fund to the extent that it is dependent on the LTCF for its own liquidity needs. (NDFC is currently insolvent and would not be in a position to remit funds held on deposit on behalf of LTCF without liquidity assistance from the State Bank of Pakistan.) The Bank had always perceived NDFC to act as LTCF administrator on a temporary basis. The alternatives realistically available for the future operation of the LTCF have diminished over time due to: (i) the absence of an identified pipeline of viable infrastructure projects in the energy sector that would realistically reach financial close in the next few years; (ii) reduced investment appetite for Pakistan, and (iii) the deteriorating condition of NDFC. In the end, the Bank agreed with the Government that creating yet another financial "institution" would be inconsistent with the Government's current strategy, supported by the Bank, to consolidate the financial sector. However, no agreement was ever reached on the future management and ownership of the LTCF.

4.1.4 On balance, the physical targets set out under the two Projects have largely been achieved resulting in investments totaling some US$5 billion. However, the outcome of both Projects is rated unsatisfactory as the related economic, financial, institutional and technical aspects fell short of expectations and, therefore, negatively affected the Projects' development outcomes.[5]

4.2 Outputs by components:

4.2.1 *Macroeconomic Impact*: Under the 1994 Private Power Policy, the Government guaranteed the

availability of foreign exchange and payment obligations of the state-owned power offtakers (WAPDA or KESC) and the state-owned fuel suppliers (PSO or OGDC). While WAPDA was in good financial condition at the time of both appraisals, several developments led to the deterioration of its financial performance, as a result of which it faced difficulties in meeting its obligations to IPPs which required on-time cash payments. These developments included: (i) front-loaded IPP tariffs which are indexed to the US Dollar, combined with a 45 percent devaluation of the Rupee; (ii) a decline in electricity demand due to low economic growth which led to a temporary over-capacity in generation; (iii) poor collection rates from government customers which account for 30 percent of WAPDA's sales; and (iv) widening tariff cross subsidies that play against industrial and commercial consumers, who have installed their own captive capacity.

4.2.2 In addition, Pakistan's federal system and narrow fiscal base makes it prone to types of behavior--e.g. government arrears and unpredictable increases in fuel taxes--that makes cost recovery for power supply more difficult. The IPP program also put pressure on the country's historically precarious balance of payments position. Foreign debt service obligations related to the IPPs are estimated at about US$500 million per annum in addition to the foreign exchange cost of imported fuel, O&M and repatriation of profits. The country's foreign exchange reserves fell to less than US$400 million in November 1998, recovered to US$1.5 billion around March 1999, and has subsequently stabilized to about US$0.6 billion in 2000 (equivalent to about three weeks of imports)--which has seriously jeopardized the Government's ability to honor its obligations in providing foreign exchange. Lastly, the Government is exposed to large contingent liabilities under the Implementation Agreements (IAs) signed with the IPPs which were not sufficiently addressed by the Government or the Bank. The Government did not establish a system for managing contingent liabilities even when confronted with the real possibility that government guarantees under the IAs could be called as a result of political events of default as defined under the agreements. Conclusion: unsatisfactory.

4.2.3 *Financial Impact*: Both PSEDP I and II have generated financial stresses for the borrower due to the fact that there is a complete currency mismatch between the liabilities and the ultimate source of revenues (domestic power consumers). In principle, this risk can be mitigated if the ultimate revenue source is itself linked to foreign currency, such as for electricity sales to export related industries. In the case of PSEDP I, the foreign exchange risk on the loans which funded the LTCF was assumed by the Government as the loan to Hubco was made in Rupee terms.[6] For PSEDP I the foreign exchange exposure is not only against the World Bank lending, which has been on currency pool terms,[7] but also to loans from other donors denominated in Italian Lira, French Francs and Japanese Yen. In the case of PSEDP II, the Rupee foreign exchange risk was passed on to the IPP, as the various sub-loans were made on Dollar terms, who in turn were able to pass on a substantial part of the foreign exchange risk to WAPDA by indexing the tariffs in Dollars. However, for the LTCF, this gives protection only against Dollars while the indebtedness is in a mix of currencies.

4.2.4 Overall, PSEDP I and II have exposed the various parties, most particularly Pakistan, to substantial foreign exchange exposures, not only between the Rupee and Dollar but also between the Dollar and the Yen and the Euro. Furthermore, there has been a persistent failure to recognize the Currency Pool rather than Dollar denomination of the World Bank loans in LTCF accounts.[8] Despite this, the experience of the LTCF has been relatively fortuitous in that the Dollar has been strong against the Yen and the Euro over the term of the loans to date, which has counterbalanced depreciation in the Rupee. With the movement of exchange rates over the term of the Projects, the LTCF has experienced foreign exchange loss and gains on an annual basis. However, it is noteworthy that in 1998, the LTCF realized foreign exchange losses of some $75 million. In addition to the currency exposure, the Projects also present Pakistan with

interest rate exposure. The interest rates for the loans made by the LTCF under PSEDP I and II are fixed for some time and then are referenced to the Bank's borrowing rate, which is an average of long term rates and adjusts gradually with time.[9] This creates a mismatch with the loans from other donors which are a mixture of fixed and floating rates.

4.2.5 Lastly, WAPDA was not able to absorb the financial impact of the new IPPs and, together with GOP, resorted to negotiating tariff reductions before many were even commissioned. The total cost of power purchased on a per kilowatt basis increased rapidly due to Rupee depreciation, increases in fuel prices, and lower than anticipated plant load factors. The terms of the Power Purchase Agreements allowed IPPs to pass through fuel costs and to index various components of the energy and capacity payments against exchange rate variations of Rupee to US Dollar and US inflation rate. However, WAPDA was unable to pass these escalated costs on to its retail consumers or to improve its efficiency of operations sufficiently to mitigate the financial impact of the IPPs. The slowdown in electricity demand growth exacerbated this situation as most IPPs were commissioned over a two to three year period. Conclusion: unsatisfactory.

4.2.6 *Sector Policies*: The 1994 Policy was highly effective in attracting significant private power investment to Pakistan and, as a result, load shedding due to insufficient generation capacity has been largely eliminated. Nevertheless too many subprojects were given letters of support (34 subprojects for 9,000 MW) and too much capacity (3,150 MW) was contracted, despite the Bank's caution to cap the amount at 2000 MW. Rather than proceed through competitive bidding for private power, Pakistan instead set a tariff ceiling for investors in an effort to accelerate the private power program which proved very successful. The ceiling price set in the 1994 Policy (US¢6.1/kWh as an average for the first ten years and US¢ 5.5/kWh over the life of the project on a levelized basis) was competitive with levelized prices in other developing countries at the time, including Indonesia, Philippines and India. These prices were not determined competitively, and some of the comparative countries, similar to Pakistan, ranked low on international indices of corruption.

4.2.7 The 1994 Policy led to many projects being supported which were too small and not suitably located to system requirements. In addition, a bidding mechanism for IPPs could have resulted in lower prices and promoted transparency (although higher prices are also due to limited gas availability, so that most projects could not use efficient combined cycle technology). Projects which received a Letter of Support, were supposed to reach financial close within one year; however, the Government was not able to devote equal attention to each of the sponsor groups. This led to extensions being granted for several projects. Moreover, the basis on which projects were selected and accorded attention was not transparent and subject to political influence which led to perceptions of corruption by successive governments.

4.2.8 In all, the 1994 Policy led to far more subprojects and investment in IPPs than GOP could have anticipated. Power shortages were eliminated, but the cost of the surplus capacity has been taxing WAPDA's financial position. With the benefit of hindsight, there were flaws in the Policy that subsequently became apparent to GOP and led to its revision in 1998, which did much to address the shortcomings in the 1994 Policy. It provided for competitive bidding for new subprojects needed after 2003. Additional capacity needs by 2008 were estimated to be 5,000-8,500 MW. The new policy was designed to attract bids for hydro and indigenous coal-fired plants for which feasibility studies had already been prepared. No subprojects, however, have been approved under the new policy although PPIB is preparing prequalification and bidding documents for several hydro subprojects. Selection will be based on price with restrictions on front-end loading of tariffs. Conclusion: unsatisfactory.

4.2.9 *Physical Development*: Hub was the first IPP and was built on time and within budget. The total cost was US$1.6 billion (US$1,238 per kW), of which "soft" costs absorbed US$520 million, mostly interest during construction and financing costs. Development costs--mostly legal costs-- required about US$81 million. The original financing for Hub included US$615 million from the Fund (US$386 million under PSEDP I, including IBRD financing of US$146 million, and US$230 million under PSEDP II, including IBRD financing of US$110 million). The Hub project absorbed all the financing available under PSEDP I. The additional funding provided under PSEDP II (approved six years after PSEDP I), together with a Partial Risk Guarantee, secured the completion of the financing plan for Hub. The subproject took almost 10 years to develop and build. This experience leads to the conclusion that the first IPP in Pakistan should have been a smaller subproject, which could have been more easily financed. Nevertheless, it did demonstrate to GOP how limited recourse subprojects could be prepared and provide a good learning experience for NDFC, PPIB, the Bank, commercial lenders, developers, and the lawyers.

4.2.10 The next three power plants financed through PSEDP II--Rousch, Southern Electric, and Uch--were all approved under GOP's 1994 Power Policy. The APL Pipeline subproject, which provided fuel to Hub, was also financed under PSEDP II. All the power subprojects were delayed, from 20 months (for Rousch) to over two years (for Uch), resulting in cost increases of over 20 percent in each instance. The final total cost per kW was similar, ranging from US$1,310 for Uch (gas-fired combined cycle plant), US$1,342 for Southern Electric (diesel plant) to US$1,396 for Rousch (oil-fired combined cycle plant). The original project cost of between US$1,030 and US$1,200 per kW (not including standby financing) for these three projects was more or less in line with the assumed project cost of US$1,000 per kW under the 1994 Policy. (However, starting in about 1997, capital equipment costs for combined cycle plants dropped to about US$450 to US$600 per kW.) The APL pipeline subproject was completed five months late but US$10 million below initial estimates. Conclusion: satisfactory.

4.3 Net Present Value/Economic rate of return:

4.3.1 Given the nature of PSEDP I and II, neither an overall economic rate of return (ERR) or financial rate of return were estimated at the time of appraisal since subprojects were not identified in sufficient detail. However, the Loan Agreements specified as part of the evaluation and approval criteria that the investment subprojects must be "technically, economically and financially viable" to the satisfaction of the Bank - without defining specific hurdle rates. While the economic analysis contained in the appraisal reports prepared by NDFC for each subproject is rather weak (no ERR was calculated), sufficient analysis was provided on the technical and financial feasibility of the subprojects. Financial feasibility was justified based on adequate debt service coverage ratios, project rates of return and equity rates of return. The Bank (and IFC in the case of the Uch Project) carried out economic analysis of both the Hub and Uch projects as part of the due diligence of the partial risk guarantee operations and an estimated economic rate of return was calculated as 18.3 percent and 20 percent, respectively. Revised economic and financial rates of return were not calculated for each sub-project as the required data was not accessible from the private power companies. However, given the extended delays in plant commissioning for Rousch, Southern Electric and Uch, the corresponding increase in project costs, and the reduction in tariff for each of the four power sub-projects negotiated by WAPDA during 1998-2000 (see paras 5.2.2 and 6.1.1), one can deduce that the revised rates of return, both economic and financial, have decreased since sub-project appraisal.

4.4 Financial rate of return:

4.4.1 See Section 4.3 above.

4.5 Institutional development impact:

4.5.1 The Bank was instrumental in creating three agencies: (i) the Private Power Cell (PPC), subsequently converted to the Private Power and Infrastructure Board (PPIB); (ii) the Private Energy Division (PED), a unit of NDFC in charge of administering the LTCF; and (iii) the WAPDA Private Power Organization (WPPO). All three benefitted from technical assistance under the project (funded by USAID, DFID and the Bank) and gained considerable expertise in IPPs during the past 12 years. However:

- PPIB carried out its mandate to act as a single window, but its performance was adversely affected by political interference resulting in frequent managerial changes and organizational instability. To ensure its autonomy, staff costs were covered in its initial two years under PSEDP II (subsequently extended to three years). Thereafter, PPIB was to receive 0.25 percent of the intermediation spread charged on the sub-loans to cover its costs and ensure its independence from budget transfers. Although PPIB has received some limited funds from the LTCF on an ad hoc basis, the mechanism has not been finalized in part due to confusion as to the amount PPIB was owed as a result of ambiguous language in the loan agreements. To date, PPIB has relied on the application and other fees charged to IPPs to meet its budgetary needs, but this is not sustainable since new projects on which to earn additional fees are not forthcoming. While the allocation of 25 basis points was, in hindsight, excessive and would have greatly exceeded PPIB's needs if the full amount was made available; the balance was retained in the Fund, and as the Fund was held on deposit with NDFC, was ultimately used by NDFC for its own liquidity needs.

- The Private Energy Division of NDFC carried out appraisals of private sector subprojects, and negotiated long term, subordinated loans on a limited recourse basis in accordance with the Administration Agreement (1989) and the Operational Guidelines (1994). As lender on record, it collects the debt service due from the project companies and monitors loan and project performance. Debt service and other fees received are held on deposit by NDFC on behalf of the Government. Although NDFC was one of the better development financial institutions when the projects were appraised, its financial condition has steadily deteriorated to the point where it is now, not only illiquid, but insolvent. As a result, NDFC has not always been able to transfer the full amount due to the Government to repay the underlying loans which financed the LTCF. (The Government met the differences from other sources.) While the Government took steps in mid-1999 to protect the assets of the Fund by instructing NDFC to deposit reflows into the National Savings Scheme, this Scheme no longer accepts institutional deposits and alternative arrangements have not been made to date. Moreover, notwithstanding agreements to that effect, the Government did not spinoff the LTCF from NDFC and convert it into a fully operational, autonomous, commercially-oriented financial institution. Finally, while significant capacity was built through training of PED staff in project finance transactions, NDFC has recently let go most of the senior staff resulting in a loss of institutional strengthening that was achieved under the Projects. In hindsight, issues regarding the future of LTCF should have been sorted out prior to approval of the PSEDP II.

- WPPO, which was entrusted with coordinating with the different units of WAPDA during the negotiations of IPPs, was formally deprived of this function under the 1994 Policy. However, in practice it has continued, on and off, to negotiate PPAs and the applicable

tariff since that time. WPPO also suffered from continuous turnover in its senior management and never fully developed the capacity to implement and monitor the PPAs signed.

4.5.2 In all, the three entities never enjoyed managerial autonomy, so that their decision making process was heavily influenced by political considerations. Given the uncertainties surrounding them and the lack of transparency, the institutional objectives of the project have not been fully attained.

5. Major Factors Affecting Implementation and Outcome

5.1 Factors outside the control of government or implementing agency:

5.1.1 The finalization of the security package and mobilization of the financing for the Hub Power Project, the sole sub-project financed under PSEDP I, was delayed by almost four years due to unforeseen events such as: (i) the Gulf war which suspended most of the development activities for almost fourteen months (1990-91); (ii) the withdrawal of two of the main contractors which made it necessary to reconstitute the construction consortium (1990); (iii) the occasional losses of continuity that attended six changes in government in Pakistan which at times required renegotiation of key agreements; and (iv) the declaration of interest on loans illegal by the Federal Shariah Court in Pakistan (an issue that took some seven months to resolve). These delays led to an escalation of around US$150 million in the turn-key contract price. In addition, the senior lenders insisted on higher contingencies and standby financing amounting to around US$100 million. This necessitated new loans from the Bank and JEXIM to replenish the Fund, and PSEDP II was approved at the end of November 1994. Therefore, while PSEDP I became effective in October 1988, Hub did not reach financial close until December 1994. Based on the experiences of Hub, the Government announced a new set of incentives in 1994 and introduced streamlined approval procedures and standardized agreements. This allowed the subsequent IPPs, including the sub-projects financed under PSEDP II, to reach financial closure in a relatively short time for project finance transactions. Therefore, factors outside the control of government had a significant effect on project implementation for PSEDP I, but not PSEDP II.

5.2 Factors generally subject to government control:

5.2.1 The Government, through the Private Power and Infrastructure Board (PPIB), was responsible for implementing the private power policy and the tariff structure but failed to review the policy and tariff on an annual basis as was the original intention. The 1994 Policy should have been amended in light of changing circumstances such as the reduction in load growth and the subsequent fall in the cost of power plant equipment. In hindsight, the Government should have placed a cap on the number of letters of support issued, and the tariff offered should have been reduced when it became apparent that the response from the private sector was exceptionally high. In retrospect, the percentage of letters of support which was expected to result in a completed project was underestimated.

5.2.2 Starting in 1998, the Government through the PPIB issued seven Notices of Intent to Terminate on grounds of corruption and two on technical grounds which represented about two-thirds of private power capacity contracted (including two sub-projects financed under PSEDP II). Whatever the substance of the Government's allegations of corruption--such allegations are difficult to prove generally and no evidence was produced in court--these actions were largely perceived by the developers as means to delay the completion of IPP projects under the 1994 Policy and to extort tariff concessions given WAPDA's cashflow problems, political pressure not to increase retail tariffs, as well as the shortage of foreign exchange available in the country. IPPs expressed frustration at being called to appear before no fewer than a dozen IPP Committees constituted by the Government in an attempt to negotiate lower tariffs. The different incarnations of the IPP Committee comprised, at various times and combinations, representatives

of the Accountability Bureau, PPIB, WAPDA, Ministry of Finance and independent local businessmen, among others. None of these committees proved effective as no clear authority to negotiate was delegated. In the end, one-on-one negotiations with WAPDA combined with intervention at the highest government level, resulted in several IPPs agreeing to tariff reductions. Separately, the Hub Power Company was accused of corruption in securing the amendments to the Power Purchase Agreement which resulted in a court mandated reduction in the capacity price to be paid by WAPDA. Furthermore, changing governments sought to place the blame for the perceived high cost of private power on previous governments, and as a result, the IPP program became highly politicized. The handling of corruption allegations contributed to the erosion of investor confidence in Pakistan and has reflected adversely on GOP. This has had a substantial negative impact on the outcome of both PSEDP I and II.

5.2.3 Lastly, each of the institutions involved in the private power program (PPIB, NDFC and WPPO) were adversely affected by political interventions. These contributed to the high turnover of officials and undermined the autonomy of the concerned institutions with adverse implications for the outcome.

5.3 Factors generally subject to implementing agency control:

5.3.1 The actions of WAPDA to delay commissioning of IPPs and secure tariff reductions in return for permitting the plants to commence operations contravened at least the spirit of project documents signed with the subproject sponsors. The result is that tariff reductions have been obtained and WAPDA has been able to delay paying capacity charges, but the overall subproject costs have risen by 20-30 percent (except for HUB and the APL pipeline subproject which were completed on time) which affected return on equity as the construction risk had been assumed by the IPPs. This resulted in the three IPPs financed under PSEDP II to be commissioned between 14 and 30 months behind schedule, as well as the Government assuming more risk to the three subprojects as LTCF contributed to meeting the cost overruns.

5.3.2 In addition, WAPDA alleged corruption charges against Hubco and prevented the company from pursuing international arbitration through injunctions sought by WAPDA in the local courts. On June 14, 2000 the Supreme Court of Pakistan upheld, in a 3-2 decision, that the dispute between Hubco and WAPDA is not subject to arbitration, ruling that the dispute centers around alleged criminality and therefore, as a matter of public policy, it should be resolved within Pakistan in accordance with local laws. Hubco filed petitions in the Supreme Court seeking a review and reversal of this judgment. The matter was resolved in a Settlement Agreement signed by Hubco and WAPDA on December 17, 2000 which lowered payments to Hubco by WAPDA, provided for corruption charges and lawsuits to be resolved or withdrawn by March 31, 2001, and reaffirmed the validity of the contract. These factors have substantially effected the outcome of the Projects.

5.3.3 NDFC and PPIB played key roles in the implementation of the policies and in selection, appraisal, and financing of the subprojects. However, the frequent changes of key personnel, the political nature of appointments, and at times interference by GOP hindered their effectiveness. The failure of NDFC to provide agreed funding under GOP's directions for PPIB's operations preoccupied PPIB managers. More recently, the financial problems of NDFC's own account operations have jeopardized its ability to administer the LTCF as it has used the Fund's cash assets for its own liquidity needs, and has in effect "captured" the Fund. In addition, the politicization of the IPP program during 1998-1999 prevented PPIB and NDFC staff from taking decisions for fear of retribution which further frustrated the resolution of issues. This has negatively affected the outcome of the Projects.

5.4 Costs and financing:

5.4.1 Strict comparisons of appraisal estimates of project cost and financing with actual costs are not very meaningful given the project design where the Long Term Credit Fund created under the project, was intended to catalyze financing for private sector sub-projects which, for the most part, were not identified in detail at the time of appraisal. The Hub project was the only subproject identified at the time of appraisal for PSEDP I and II, and the APL Pipeline subproject was identified during PSEDP II appraisal.

5.4.2 Under PSEDP I, total project cost was estimated to be US$1,893 million equivalent. The proposed Bank loan of US$150 million, together with loans and grants from bilateral aid agencies, amounting to US$415 million would finance the Fund and consulting services. The remaining US$1,328 million was to be provided by the private sector, comprised of US$470 million (25 percent) equity and US$858 million (45 percent) in local and foreign commercial loans and suppliers' credits. Under PSEDP II, the estimated total cost of the Project was about US$2,388 million of which US$11 million was for technical assistance and US$2,377 million for subprojects. The Hub Power Project would account for US$1,832 million and the APL pipeline, US$100 million. The remaining US$445 million would be for power subprojects.

5.4.3 In reality, PSEDP I and II led to the financing of five private energy investments in Pakistan, for a total cost of over US$3 billion. Table 2 below compares subproject appraisal estimates (as prepared by NDFC) with actual costs. (Annex 10 provides additional details on each of the subprojects.) It should be noted that with the exception of the Hub subproject and the APL pipeline, which were completed within budget, the other three subprojects experienced cost overruns on the order of 20-30 percent.

5.4.4 Given the incentive structure under the 1994 Policy, the capital costs per kW of the subprojects were relatively high, largely due to high "soft" costs (i.e. sponsor/project development costs, interest during construction and other financing fees). Not including standby financing, the estimated cost per kW for the four power projects financed under the two loans (Hub, Uch, Rousch and Southern Electric) was estimated to be US$1245, US$1200, US$1090 and US$1035, respectively. Using actual figures, the cost per kW for these same projects was approximately US$1205, US$1365, US$1395 and US$1325, respectively. In addition, the percent of "soft" costs for the Hub and Uch projects were about 30 percent (including 11 percent and 7 percent, respectively, for project development costs). The "soft" costs for the Rousch and Southern Electric projects were more modest around 14 percent and 17 percent respectively, including 3 percent for project development costs. As a comparison to the Uch and Rousch plants which used combined cycle technology, the 360 MW combined cycle power plant in Bangladesh, which was competitively bid in 1997, has a total estimated cost per kW of US$510, including "soft" costs of 17 percent and project development costs of 4 percent. However, these prices were obtained at a time when world market prices for this type of equipment were at an all time low, and manufacturers were introducing new combined cycle technology. Equipment prices have since increased in large part due to increased demand in developed countries, notable the USA.

Table 2
Project Cost and Financing Plan
(Comparison of NDFC Subprojects: Appraisal Estimates vs. Actual)
(amounts are in US$ million)

	HUB[1]		APL		Rousch		SEPCOL		Uch[2]		Technical Assistance		TOTAL		
	appraisal	actual	appraisal	actual	appraisal	actual	appraisal	actual	appraisal	actual	appraisal	actual	appraisal	actual	
Subordinated Debt - PSEDP I															
IBRD	146	116									4	1	150	117	
Cofinanciers	240	198											240	198	
Other[3]		16											0	16	
TOTAL	386	330	0	0	0	0	0	0	0	0	4	1	390	331	11%
Subordinated Debt - PSEDP II															
IBRD	110	50	20	20	70	120	35	35	5	5	6	4	246	234	
Cofinanciers	120	58	0	0	70	49	0	0	182	175			372	282	
Other[3]						12		8		30			0	50	
TOTAL	230	108	20	20	140	181	35	43	187	210	6	4	618	566	18%
Total Subordinated Debt	616	438	20	20	140	181	35	43	187	210			1008	896	29%
Senior Debt															
WB PRG	240	146							75	75			315	221	
IFC									115	115			115	115	
Export Credit Agencies, etc.	492	482			46	47	22	25	153	136			713	670	
Commercial Banks					137	148	35	40					172	188	
Local Banks	84	75	40	30									124	105	
TOTAL	816	683	40	30	183	195	57	65	343	326			1439	1299	42%
Equity	372	372	35	35	127	188	28	33	160	185			722	813	26%
Other[4]	56	63				11		6		18			56	98	3%
GRAND TOTAL	1860	1556	95	85	450	575	120	147	690	739	10	5	3225	3106	100%

1/ Original financing plan for Hub includes $250 million of standby financing: US$40 million under the Bank's ECO guarantee; US$20 million under the JEXIM guarantee; $25 million under the local debt facility, and $225 million under PSEDP I and II.

2/ Original financing plan for Uch includes US$80 million of standby financing, $30 million in equity standby and $15 million each under the IFC B Loan Facility and the World Bank Guarantee Facility. The figures given in the actual column are estimates since the financial restructuring has not yet been completed.

3/ Includes capitalization of interest charges.

4/ Includes revenue during construction, and liquidated damages claims.

6. Sustainability

6.1 Rationale for sustainability rating:

6.1.1 The sustainability for both PSEDP I and II is unlikely. While the IPP program moved ahead quite aggressively, the reform of WAPDA is proceeding at a much slower pace than originally envisaged and only started in earnest in 1998. In fact, there was no cross conditionality between PSEDP I and II and other Bank projects in the Pakistan power sector. The economy, and hence the demand for power, did not grow as anticipated, and too much private power was contracted under the 1994 Policy. The general economic weakness of Pakistan, which has necessitated IMF programs and rescheduling of commercial debt, places future IPP foreign exchange transfers at risk--although the record of governments in facilitating these transfers has been good, even at the low point of relations with IPPs--and any future calling of government guarantees and acceleration of IPP debt could trigger Pakistan default with uncertain political outcomes. Also, the entire energy sector was jeopardized by the poor financial performance of WAPDA and KESC, which resulted from the failure (i) to achieve efficiency improvements through restructuring and privatization (which would have improved meter reading and billing and reduced electricity theft); (ii) to receive regular tariff adjustments; and (iii) of government, particularly at the provincial level, to pay for electricity. Furthermore, WAPDA had difficulty honoring its commitments to the IPPs which necessitated a lengthy renegotiation process on tariffs. Under the circumstances, particularly as long as an excess of capacity prevails, there could be further pressures on the twenty private generators to reduce their tariffs and/or on the commercial lenders to restructure the IPP debt. Notwithstanding the above, WAPDA has now made substantive progress in implementing the reform program since 1997/98 and has renegotiated a lower tariff from the majority of the IPPs that has brought some relief to their cashflow problem. However, the IPP crisis has contributed to the lack of confidence in Pakistan by potential investors needed to turnaround the financial performance of the power sector. This leads to the conclusion that unless the power sector reform is fully implemented, the framework is unsustainable.

6.1.2 The institutional framework created under the project does not appear sustainable, unless the Government takes drastic measures, given: (i) the lack of secure funding for PPIB, (ii) the insolvent state of NDFC which has, in effect, captured the reflows of the LTCF, (iii) the reluctance of the Government to address the future management and structure of LTCF; (iv) the limited ability of WAPDA's Private Power Organization (WPPO) to effectively manage its commercial relationship with the IPPs; and (v) the delay in reforming WAPDA and restructuring the sector. The financial difficulties faced by NDFC as a financial institution severely jeopardizes the sustainability of the Fund since recent indications are that NDFC is dependent upon the Fund for income and liquidity. The Government is yet to decide on the use of such funds or to implement satisfactory safeguard measures to prevent the reflows from being held hostage by NDFC. On the positive side, there is currently progress on the implementation of the power sector reforms, including the financial restructuring of WAPDA and KESC, but there is still some way to go to fully restore the financial viability of the sector.

6.2 Transition arrangement to regular operations:

6.2.1 The Bank has recommended that the Government replaces NDFC as the Administrator, given its inability to effectively manage the Fund, and to put in place an interim arrangement to monitor the current portfolio of assets. Unfortunately, the Government has not yet made suitable arrangements to safeguard the assets of the Fund or address its future.

7. Bank and Borrower Performance

Bank

7.1 Lending:

7.1.1 Bank performance during project preparation of PSEDP I can be considered unsatisfactory. In many ways, the project was highly innovative and challenging in that it sought to assist the Government in undertaking build-own-operate projects using limited recourse financing - a financing technique that had been seldom, if ever, used in developing countries until then for large scale infrastructure projects. It required the creation of a Private Sector Energy Development Fund (later renamed the Long Term Credit Facility - LTCF), and the development of GOP institutions to appraise and supervise subprojects, and manage the Fund (the Private Energy Division of NDFC) and develop and administer a private power policy on behalf of GOP (initially the Private Power Cell which subsequently became the Private Power and Infrastructure Board -- PPIB). However, insufficient thought was given to the financial aspects of the Fund and to its future. In terms of Bank procedure, appraisal of both Projects was carried out directly by the Energy Operations Division Manager. High level senior management attention may have led to inadequate attention being given to dissenting views during the review process.

7.1.2 Despite its innovation, in retrospect the Project may have been too large. Although several subprojects were identified as potential candidates for LTCF funding during appraisal of PSEDP I, all the proceeds of the first loan and a portion of the proceeds from the second loan were devoted to finance the Hub subproject and the related pipeline. Given the slow progress in bringing the Hub project to financial closure, the Bank should have at least considered ending its involvement in the project. Furthermore, this large project required many sponsors and lenders, leading to excessively complex arrangements and decision making processes.

7.1.3 The Bank not only played a coordinating role on behalf of cofinanciers, but also played the role of "broker" to help resolve issues between the Government and the Hub project sponsors. These roles were viewed by most stakeholders as invaluable since the project was pioneering and the sectoral initiative was new for Pakistan. Without the Bank's contribution as unofficial leader of the cofinanciers and confidante of the Government, development of the Hub project could have presented insurmountable problems to the Government and sponsors. The downside was that some parties viewed the Hub project as a "Bank project", especially as the Bank acted like a promoter representing sponsors, lenders and government. In hindsight, Bank involvement went far beyond what was prudent for a development banker and exposed the Bank to conflicts of interest and reputational risk.

7.1.4 Insufficient attention was devoted during appraisal of PSEDP II to the affordability of private power in Pakistan. In 1994 when PSEDP II was approved, WAPDA's average tariff was approximately Rs. 1.45/kWh (US¢4.5/kWh). The levelized tariff recommended under the 1994 Policy at US¢6.5 kWh for the first 10 years[10] increased, taking into account losses at 24.2 percent, to US¢8.6/kWh. Thus, the issue whereby WAPDA would lose implicitly US¢4.1/kWh bought from IPPs was acknowledged but not addressed through the loan. This issue would have been appropriately addressed had the Government more vigorously pursued the power sector reform program early on and allowed WAPDA to treat the cost of purchases from IPPs as a pass-through in its tariffs. However, it is highly unlikely that tariff increases of this magnitude would have been politically or socially acceptable, or even commercially sustainable.

7.1.5 Lastly, the Bank required through covenants under PSEDP II (and as amended under PSEDP I) that the Government offer concessions to IPPs which would be deemed excessive by today's standards, including a provision whereby the applicable tariff will be such that it yields a return on equity of 25 percent after tax, provided that it does not exceed the avoidable cost of WAPDA which at the time was set

at US¢6.5/kWh. In retrospect, the Bank should not have encouraged such a provision in its loan covenants on what was essentially a commercial matter.

7.1.6 Under the circumstances, the performance of the Bank at appraisal is rated as unsatisfactory for PSEDP I and II.

7.2 Supervision:

7.2.1 As a practical matter, it is difficult to assess separately the supervision efforts of PSEDP I and II since the Loan Agreement for PSEDP I was substantially amended to match that of PSEDP II and its closing date was extended to be co-terminus with PSEDP II. In general terms, the supervision effort focused to a very large extent on the review, preparation, appraisal, and negotiations of specific IPP transactions, as opposed to ensuring that the framework for inviting private power, and the related institutions, perform in accordance with expectations. This is also apparent from the staffing profile of supervision missions. In addition, the exceptional success of the IPP program in mobilizing private finance created a diversion for management, both in the design and supervision stages, lessening their attention on the reform of the sector itself (which was to be implemented under a separate Bank project and by a separate team). On the credit side, the Bank was very innovative and forceful in overcoming the difficulties of seeing through the IPP program once it ran into trouble starting in 1998, and worked in a coordinated fashion with both IFC and MIGA which were also involved in Pakistan IPP projects. In addition, the consolidation of the Bank teams working on the IPPs and sector reform issues has been beneficial.

7.2.2 Acceptable audited financial statements for the LTCF and the various subprojects were submitted to the Bank as required in the legal agreements. Except in the last two years of implementation, NDFC submitted these reports in a timely fashion. The last two annual audited statements for the LTCF were delayed by over a year due to several changes in NDFC's management, which left the organization without a permanent NDFC Chairman in a position to call Board meetings to endorse and sign the accounts. In fact, the audit for the last fiscal year is yet to be received. The Bank followed up on the delays in an appropriate manner and there were no accountability issues raised in the audits received. Compliance with the Bank's procurement and environmental and resettlement safeguard policies was a condition under the subloan agreements between the LTCF and the subproject companies. Each subproject met the Bank's safeguard policies applicable at the time. Since NDFC did not have the capacity to ensure compliance, the Bank took the lead in reviewing and clearing the Environmental and Social Soundness Assessment reports prepared by independent consultants, financed by the sponsors, for each of the five subprojects. Until the loans are repaid, the Lenders' Engineer is responsible for monitoring environmental compliance. As such, supervision missions did not include environment or social development specialists. According to information available, each subproject is operating within the environmental standards as per Bank guidelines. Except for the Rousch subproject where seven households were resettled, no other persons were resettled. Table 4 (see page 35) provides additional information on environmental and resettlement aspects for each of the subprojects including land acquisition and people affected, if any.

7.2.3 The supervision missions initially focused on the Hub project and securing its financial closure which also required arranging the financing for the related APL fuel oil pipeline. (It should be noted that gaps were discovered in the supervision records during the period 1992-95 which corresponds with the intensive period during which the Bank was focused on closing the Hub project.) The Bank made exceptional efforts to enable the closure of Hub, including: (i) the identification of the sponsors for the pipeline, and helping arrange for its financing; (ii) the use of IBRD funds under LTCF for mobilization payments to contractors prior to financial close; and (iii) the initial utilization of the ECO Guarantee instrument designed to protect commercial lenders against certain political risks (after three years of preparation, the Bank and JEXIM processed parallel guarantees of US$240 million and US$120 million,

respectively). The Hub guarantee was the first partial risk guarantee extended by the Bank and the lessons were subsequently incorporated in the Board paper on "Mainstreaming of Guarantees", which streamlined processing of the product. In April 1996, the Bank approved a similar guarantee in the amount of US$75 million for Uch Power Limited.[11]

7.2.4 When the Hub project ran into trouble with the Government in 1998 and Hubco's management was accused of corruption, the Bank's position was conflicted given its many roles (i.e. as guarantor to the commercial lenders, indirect lender to the project company, lender to WAPDA, and advisor to the Government). On the one hand, the sponsors and lenders were looking to the Bank to support the project and intervene with the Government on their behalf, in light of what they viewed were politically motivated charges and which they considered were unfounded and driven by the desire of GOP/WAPDA to reduce Hub's tariff. The Government, on the other hand, was seeking the Bank's assistance in pursuing the corruption charges and lowering of tariffs which WAPDA could not afford to pay without politically infeasible tariff increases. Ultimately, the Bank assisted in developing an orderly framework for resolving the IPP disputes, and facilitated meetings between Hubco and the Government, at their request, to reach a mutually agreed settlement which was ultimately concluded without the Bank's presence.

7.2.5 Overall, there was insufficient attention paid to the institutional development aspects of the projects. Significant covenants affecting institutional objectives that were not complied with included the following:

- Establishing LTCF as an autonomous, commercially oriented financial institution was included as a loan covenant under PSEDP I. In addition, it was agreed that a study to that effect would be conducted in 1989, and its recommendation would be implemented subsequently. However, this was postponed by GOP, with the concurrence of the Bank and cofinanciers, until the first subproject (Hub) was launched. Therefore, a covenant to reconstitute the Fund along the above principles and to appoint a board of directors and managing director for the LTCF was included under PSEDP II. (It is noted that this was stated as a condition of effectiveness in the Staff Appraisal Report (SAR), although the Minutes of Negotiation reveals that it was included in the Loan Agreement. It is unclear why the SAR was not updated to reflect this change in condition.) In addition, consultants were to be appointed to formulate a framework for the operation of LTCF as a administratively and financially autonomous institution. While the board and a managing director were appointed, their powers were (rightly) questioned by NDFC, which was still operating the Fund under an Administration Agreement with the Government. Both the Government and the Bank were preoccupied with the details of the subprojects and did not give priority to addressing the spirit of the covenant.

- For the first time in 1999, the Bank supervision team included a financial sector/capital markets specialist in an attempt to focus on achieving an autonomous, commercially oriented long term credit fund, to reassess the need to create a separate financial "institution", and to explore options for the Fund to achieve its objective in line with the Bank's current financial sector policy dialogue. Although there were several false starts in attempting to engage the Government in a discussion on a terms of reference to explore options for the future management, ownership and structure of the Fund, the Government did not meet its commitment to conduct this study. During the final supervision mission, it was agreed that the loan condition to establish the LTCF as an autonomous, commercially oriented entity could not be fulfilled in the near term, given the

unfavorable market conditions for private provision of infrastructure in Pakistan. In addition, the sale of existing assets is hindered by the overall adverse investment climate in the country. In exchange for a waiver to this covenant, the Government agreed to submit to the Bank an alternative, interim arrangement for the Fund which included details on the matter in which the assets of the Fund shall be safeguarded and a process under which the Bank shall be consulted as to the ultimate use of the LTCF funds. However, no plan has been submitted to the Bank, and so no satisfactory agreement was ever reached.

- An amount equivalent to 0.25 percent (25 basis point) of the proceeds of the intermediation spread charged on subloans was to be made available to PPIB to cover the cost of its services under the Project and to ensure its financial autonomy. However, the first partial payment was not made to PPIB until 1998/99 since NDFC, the Ministry of Finance and PPIB could not agree on the interpretation of the covenant to ascertain whether or not amounts were due to PPIB in the early years of project implementation. While the Bank agreed to fund an additional year of PPIB's incremental staff costs through December 31, 1997 under PSEDP II, it declined further requests and ultimately facilitated a common understanding between MOF, NDFC and PPIB to enable an annual payment to be made to PPIB to cover its reasonable expenses, subject to the amount not exceeding 25 b.p. of the intermediation spread.

- Government approval of the security package for the fuel oil pipeline for Hub is stated to be a condition of effectiveness in the Staff Appraisal Report for PSEDP II. In the Loan Agreement, it is presented as a dated covenant. One should note that the subproject, three years after commissioning, has not reached technical financial closure since the Implementation Agreement was never signed. The US$20 million subloan has, however, been fully disbursed and repayments to the LTCF have begun.

7.2.6 Lastly, the "highly satisfactory" rating of supervision missions for PSEDP I and II during 1995-97 was misplaced and focused too much on the apparent success of GOP's policies in attracting IPPs and private investment to Pakistan. It was only in FY99 that PSEDP II received an "unsatisfactory" rating in terms of attainment of Development Objectives.

7.2.7 Under the circumstances, the Bank's overall supervision effort for both PSEDP I and II is rated as unsatisfactory.

7.3 Overall Bank performance:

7.3.1 Overall, the Bank seemed to have been too involved in promoting specific transactions (to the extent that it even helped find partners in some instances), especially the Hub subproject and the related pipeline. It did not pay enough attention to the manner in which the Government was implementing its 1994 Private Power Policy. The Bank ought to have reacted when it was clear that too many letters of support were being issued and when it was apparent WAPDA was taking on excessive obligations with IPPs, and that less than optimal projects were being selected. The early lack of focus on the impact on WAPDA's financial situation and the covenants relating to PPIB and LTCF also contributed to an unsatisfactory outcome. There were management shortcomings during preparation, appraisal and early supervision of the Projects. The responsible managers were too closely involved in promoting projects, and senior management failed to pursue adequate quality assurance and ignored warning signs. Early supervision was entrusted to loosely managed long term consultants. In addition, Pakistani authorities alleged malfeasance against a former Bank staff closely associated with the Projects in the context of the Hub subproject, which led to an internal investigation. It was only after 1998 that substantial management

attention, both in Washington and the field, was accorded to the supervision efforts of the projects and to the underlying structural problems in the sector once it became clear that the current sector condition was unsustainable and threatened the macroeconomic stability of the country (FY99); by that time, the damage was done.

Borrower

7.4 Preparation:

7.4.1 The institutions responsible for managing GOP's policy and negotiating agreements on its behalf (PPIB) and for administering the LTCF (NDFC) were government-owned bodies that performed satisfactorily during project preparation and development. Creation of PPIB under PSEDP II was a sound decision, and PPIB was effective in carrying out its role for GOP in the implementation of the 1994 Private Power Policy. However, it is now apparent that both PPIB and NDFC's effectiveness were undermined by changes of government that reduced their independence and decision-making during implementation. The Bank sought, unsuccessfully, to prevent this from happening through covenants in the PSEDP loans.

7.5 Government implementation performance:

7.5.1 (i) PPIB: PPIB reputedly performed well initially, and all parties -- NDFC, WAPDA and private power developers -- praised the quality and effectiveness of its staff. However, over time better salaries and opportunities in the private sector attracted many of its best professionals especially with some of the IPPs. A Special Assistant to the Prime Minister headed PPIB after its formation in August 1994, and this enabled it to obtain prompt government decisions and approvals. Subsequently, with changes in government -- the Ministry of Water and Power controlled PPIB at various times and then the Ministry of Investment -- its authority and reputation were reduced. For example, some sponsors questioned the transparency and impartiality of the process by which letters of support were granted. PPIB, to its credit, does not seem to have taken a prominent role in GOP measures adopted by GOP/WAPDA to delay commissioning of IPP generators and actions aimed at forcing renegotiation of IPP tariffs. Overall, PPIB's implementation performance is rated satisfactory.

7.5.2 (ii) WAPDA - WPPO: WAPDA's Private Power Organization (WPPO) was originally set up to negotiate tariffs and power purchase agreements. It also managed the integration of private power supplies into its system. Most of these functions were taken over by PPIB from WPPO in 1994 when it assumed full responsibility for negotiations with private sector subproject sponsors. When the financial problems of WAPDA emerged in 1997, WAPDA and the Government began to dispute the PPAs and discredit IPPs through allegations of corruption. Several IPPs faced delays due to WAPDA's failure to provide transmission inter-connections on time. WAPDA sought to delay commencement of IPP operations by refusing to cooperate with them during plant testing and commissioning. This led to significant start up delays for several IPPs and contributed to undermining international investor confidence in the country. Both GOP and WAPDA have alleged that their consent to the Hubco PPA was obtained improperly and corruption was involved. To date, no evidence has been provided to the courts to support these allegations, and both sides have mutually agreed to drop pending legal cases. In hindsight, it is apparent that WAPDA was not fully committed to purchasing power from IPPs or to reforming itself.

7.5.3 During implementation of PSEDP II, WAPDA's financial performance began to deteriorate significantly. Prior to 1994, WAPDA had achieved good financial performance and had consistently maintained a high level of self-financing although this can at least be partly explained by low costs of old hydro plants, such as Tarbela, shown in WAPDA's financial statements. However during implementation of the project, a serious decline in WAPDA's finances occurred. WAPDA was not able to reduce its costs, reduce theft of electricity (except when the army took responsibility for meter reading and billing in 1999), recover revenues from provincial governments and government entities, and obtain GOP/NEPRA approval

for tariff increases needed to maintain its financial viability. One of the principal consequences is that WAPDA had difficulty meeting its power purchase obligations to IPPs. WAPDA's financial crisis was predictable, yet the management within WAPDA at that time remained complacent as finances deteriorated and poor quality service led to loss of customer goodwill. Overall, WAPDA's implementation performance is rated as highly unsatisfactory.

7.6 Implementing Agency:

7.6.1 NDFC: The Private Energy Division (PED) of NDFC performed in a satisfactory manner during the early years of implementation in processing the appraisal and approval of subprojects, but was subsequently found to be unsatisfactory. While PED was staffed with well qualified personnel, the autonomy of the PED and the ability of its staff to undertake decisions was often frustrated during 1998-2000 when the private power program was highly politicized. Subsequently, most of the PED's senior staff have left. The financial condition of NDFC jeopardized its ability to fulfill its functions as administrator of the LTCF. Furthermore, the compensation arrangements for NDFC, in addition to their access to LTCF funds (by virtue of the LTCF account being held on deposit at NDFC), made it extremely unlikely that NDFC would facilitate the creation of an alternative arrangement. The deterioration in the financial condition of NDFC commenced some time before the approval of PSEDP I and continued through the last decade, largely as a result of Government intervention and directed lending. NDFC's ability to continue to administer the Fund is tied to its own future, which is in question given its insolvent state. It is unclear that NDFC would be in a position to remit funds held on deposit on behalf of LTCF without liquidity assistance from the State Bank of Pakistan. NDFC and GOP failed to act on the establishment of LTCF as an autonomous, commercially oriented institution. Following the loss of confidence by private investors in Pakistan, the Bank has agreed with GOP that spinning off the LTCF as a separate financial institution is no longer warranted. However, concerns remain about how surpluses generated by the Fund and reflows from debt service payments by the IPPs will be used by GOP.

7.7 Overall Borrower performance:

7.7.1 The borrower and the implementing agencies (i.e. NDFC and PPIB) were fully committed to the project and this is evidenced by the success in completing 19 IPPs under the 1994 policy in addition to the Hub project. Beneficiaries of the LTCF, without exception, praised the role of LTCF in providing long-term subordinated loan funds without which their subprojects could not have been financed. However, the Government and WAPDA were criticized by IPPs for politically-motivated obstructions and delays in the past two years which led to substantial cost overruns for several IPPs and contributed to the overall decline in foreign investor confidence in the country.

7.7.2 WAPDA's commitment as the power purchaser was much more problematic in 1998/99. GOP/WAPDA vigorously pursued the renegotiation of tariffs through corruption allegations and impeded completion of several IPPs by not providing them with inter connection facilities or the approval to run their plants until lower tariffs were agreed. WAPDA was ultimately successful in securing tariff concessions from about a dozen IPPs, all of which had yet to be commissioned in 1998/9 as these were the plants over which WAPDA had the most leverage. Significantly, no IPP (other than Hubco) which had achieved commercial operations prior to this time, conceded to WAPDA's desire to reduce tariffs.

7.7.3 Lastly, the Government should have reduced its commitments for new IPPs once it became aware that an excess of generating capacity was developing. In all, the performance of GOP and its agencies (NDFC and WPPO) is deemed unsatisfactory.

8. Lessons Learned

8.1 The following are some of the lessons learned from PSEDP I and II.

8.2 Sector Reform and IPPs. The Bank mobilized over time an impressive amount of resources for the power sector in Pakistan and helped eliminate power shortages. The IPP program, unprecedented both in concept and scope, elicited an enthusiastic buy-in both within and outside the Bank. The Bank promoted measures for sector management and restructuring, as well as public sector policy reforms, which were generally right and timely. The Government, however, failed to have them implemented at the intended pace. While failures in sector reforms did not precipitate the financial crisis of WAPDA, they compounded it, crippled the efficiency of both WAPDA and the IPP program, and left the sector overly vulnerable to economic downturns. The debate within the Bank on whether sector reforms should precede private investment in power generation or whether private investment acts as a catalyst for sector reform is unresolved; however, there is a strong consensus that private investment is not a substitute for reform and that private investment in generation should not take place in front of reforms which *at a minimum* address distribution efficiency and tariff policies. *Once IPPs start to operate in a power system, it would be preferable for an integrated utility sector to be unbundled, so that competition for the market can be introduced and, over time, generating plants can be operated on a competitive basis. This further market development is anticipated as part of the ongoing power sector reform program, but details are yet to be determined. In addition, automatic indexation formulae should be in place to protect the purchasing utility from changes in fuel costs, currency devaluation, and the cost of purchased power.*

8.3 By supporting the establishment of PPIB and WPPO to implement the 1994 IPP policy, and by giving emphasis under that policy on the use of government guarantees, it may have had the unintended effect of enabling vested interest in the sector (WAPDA and the Sector Ministry) to "capture and stall" the implementation of the structural changes envisaged by the Government in the 1992 Strategic Plan for the privatization of the Pakistan Power Sector, i.e. the unbundling of the WAPDA Power Wing and the introduction of competition in the market. After substantial delays, the first phase of the power sector reform program is now nearing completion (i.e. restructuring of WAPDA's power wing into 12 corporate entities with the remaining WAPDA responsible for hydel generation, with the National Transmission and Dispatch Company initially operating as a single buyer). The single buyer model has risks in terms of preserving the role of the sector ministry in investment decisions, possibly shielding financiers of generation projects from market risks and government interference in electricity wholesale trading. The current NEPRA Act envisages that generators over time will be able to enter into bilateral contracts with distribution companies. The institutional/regulatory framework which is now being finalized is being designed so as to not hinder the ultimate creation of a competitive wholesale market.

8.4 Benchmark Pricing vs. Competitive Bidding. Rather than proceed through competitive bidding for private power, Pakistan instead set a bulk tariff ceiling for investors in an effort to accelerate the private power program and reduce transaction costs in order to quickly address the blackout situation facing the country. This was a very successful tactic in attracting foreign investors, but too many projects were approved and the selection process was not transparent. In fact, it is likely that some projects for which Letters of Support were issued, and indeed some of those which ultimately reached financial close, benefited from political support since no clear criteria existed to determine which projects to prioritize when the Government was faced with negotiating project agreements with almost 80 potential IPP developers. In addition, setting prices rather than bidding allowed for inefficiencies (e.g. projects which were too small and not least cost) and corruption opportunities on non-price issues (e.g. securing the

attendant fuel supplies and WAPDA's transmission investments). Furthermore, setting the ceiling price for power which, in hindsight, was too high led to perhaps inflated costs. *However, competitive bidding for IPPs combined with incentives for providing least cost power could have resulted in lower tariffs, prevented too many and suboptimal projects being developed, and promoted transparency.*

8.5 Large IPP programs need to be carefully managed. The IPP program was "cutting edge" and perhaps ahead of its time given the country's state of development (in terms of social, economic, political, and institutional governance), and may have been better being piloted before encouraging wider use. A power system can accommodate a small IPP program without major financial dislocation. Indeed, adding IPP capacity to a slow reforming sector can be a catalyst for reform. However, project economics still matter if the government is assuming some risk and several lessons emerge from the Pakistan experience including the need to:

- *tailor public financial support and guarantees to facilitate an efficient investment program.* Pakistan was successful in limiting Bank supported political risk guarantees to only two large projects and in providing subordinate debt under PSEDP I and II to only four large or medium size IPPs. However, all of the 20 IPPs received government support under Implementation Agreements whereby the government backstopped the payment obligations of WAPDA/KESC and the state-owned fuel suppliers. It is doubtful whether any IPPs could have been financed in Pakistan without government guarantees since perceptions of Pakistan's risk had limited financing to terms of 18-36 months. Nevertheless, such support should have been limited only to projects of clear priority that could be afforded by the country.

- *limit the size of the first IPP* to enable ready substitution if a key participant drops out and allow the Bank to take a more hands-off role in the details of the transaction. The 1,292 MW, US$1.6 billion Hub Power Project was the first IPP transaction in Pakistan and the first subproject financed under PSEDP I and II. The project emanated from two unsolicited offers which were subsequently consolidated and required six years to reach financial close. The difficulties with the project can largely be attributed to its size. The Hub subproject absorbed the full provision for PSEDP I (US$146 million) as well as a significant share of PSEDP II (US$130 million including the financing of the associated fuel oil pipeline). The Bank also provided a US$240 million partial risk guarantee to commercial lenders in order to close the financing plan. In addition, the Bank played a vital role in brokering the transaction and assisting the parties in negotiating key agreements, including commercial agreements to which the Bank was not a party. However, this approach later backfired as the Hub sponsors expected the Bank to play a key role in resolving their dispute with the Government -- a role the Bank was ill-equipped to perform as it was a conflicted player in as much as the Bank is also an advisor to the Government. Until Pakistan had developed a track record of GOP contractual performance and successful implementation of power projects in the power sector, the Government should have concentrated its efforts on modest-sized, and as a consequence, more easily financeable projects.

- *have an efficient fuel supply policy* particularly the rational use of natural gas (electricity generation is usually one of the highest value uses of gas) and allow IPPs to procure fuels in competitive markets, both foreign and domestic.

- *create capacity to manage IPP contracts.* While Pakistan created institutional capacity to approve new IPPs, and the creation of PPIB as a "one stop shop" for investors is widely credited as a key advantage in preventing bureaucratic delays, WAPDA did not put in place an effective contract management unit to manage their commercial contracts with the private sector. Furthermore, WAPDA was conflicted as the sole buyer, system operator and competing power generator which argues for unbundling, at least, transmission.

- *ensure efficient plant dispatch.* Since fuel is the main element of WAPDA and IPP costs, the power system needs to be operated to ensure that the plant with the lowest variable operating cost is dispatched first, subject to transmission constraints, and that undue preference is not given to any plant, public or private. WAPDA's current dispatch facilities do not fully recognize all relevant factors.

8.6 Due Diligence by Other Lenders. Given the overall government guarantees provided through the Implementation Agreements, it appears that private sector lenders, export credit agencies and even the IFC and the Bank primarily relied on the risk allocation framework as contained in the security package, and discounted the potential country, macroeconomic and sector risk. The parties may have also drawn undue comfort from the Bank Group's involvement in the 1994 Private Power Policy. The lesson is that one cannot fully rely on the risk mitigation measures provided in the security package when the underlying economics of the project are compromised by an unsound macroeconomic situation in the country.

8.7 Procurement. Most IPP projects which gained Letters of Support under the 1994 Policy, and which were interested in seeking subordinated financing under the Long Term Credit Fund, were not ultimately able to avail themselves of the Fund due to procurement restrictions. Any application of LTCF financing (utilizing the Bank or JEXIM funds) had to meet Bank procurement guidelines. Of the five subprojects financed by the Bank through the LTCF, one (Southern Electric) selected the EPC contractor through limited international bidding and four sub-contracted various items of the EPC contract through international competitive bidding (ICB) which were to be procured with Bank funds. However, Bank procurement guidelines existing at the time did not fit well with the philosophy of build-own-operate and limited recourse projects. As a result, the Bank had to include special procurement provisions in the Loan Agreement for the Hub and APL pipeline subprojects, including allowing equipment and works estimated to cost up to US$29 million to be procured under contracts awarded with due considerations of economy and efficiency and in accordance with sound commercial practices. Revised Bank procurement guidelines now allow project output costs (rather than input costs), such as the electricity tariff charged by the power station, to be subject to international competitive bidding (rather than the underlying equipment procurement), which opens the way for Bank financing of virtually all costs (soft and hard) during construction or for refinancing after completion of construction. *International competitive bidding upstream (i.e. for the IPP concession on the basis of price) leads to greater transparency, reduces the risk of corruption, and allows more flexibility for Bank financing.*

8.8 Contingent Liabilities. Under Implementation Agreements signed with IPPs, the Government guaranteed the payment obligations of the state-owned power offtaker (WAPDA or KESC) and the fuel supplier. In addition, GOP guaranteed the availability and convertibility of payments in foreign exchange. While foreign investments have many beneficial effects, they also entail at some point the repatriation of profits and the servicing of foreign debts. The capacity of a country to meet these new obligations is necessarily related to its capacity to increase foreign exchange earnings through exports. Particularly in the case of the power sector, where investments in excess of US$5 billion were made, the incremental foreign exchange outflow is on the order of US$800 million per annum, equivalent to eight percent of Pakistan's

exports. The Bank did not investigate the matter until 1995 in the context of the due diligence process for the Uch partial risk guarantee. The analysis concluded that under most scenarios, Pakistan would have serious difficulties in meeting the incremental foreign exchange obligations. Furthermore, given that contingent liabilities also arise in the case of oil and gas development, *Pakistan ought to put in place, possibly at the Central Bank, a monitoring system for contingent liabilities.*

8.9 Financing Issues. It is imperative to assess infrastructure fund projects on an holistic basis, including the financial implications beyond the energy sector. The focus of the Bank in this case would seem to have been on the construction of power plants and the production of electricity. Little or no attention was given to the significant risks accumulated through the financing structure, nor to the overall ability of the Pakistan economy to bear the very significant balance of payments burden created through the projects. These risks, if properly addressed at the outset, may have led to the overall rationale of the projects being questioned. The oversight in this regard extends also to the QAG who failed even to address these issues in the Quality at Entry Review. *The preparation/appraisal team should include a capital markets/finance sector specialist to ensure that all the financing issues associated with creating an infrastructure fund are properly addressed at the outset.*

8.10 Insufficient care was lent to the role of LTCF as a quasi-financial intermediary. The Long Term Credit Fund was created without any measures to ensure that its various assets and liabilities are matched (i.e. in terms of currency and interest rate structure). Furthermore, the implementing agent has not until recently been required to prepare any type of cash flow projections or asset/liability management -- which should be standard functions for a fund manager. As a result, the LTCF has suffered excessive volatility in profitability. These weaknesses stem from a lack of attention to detail in the design of the project (onlending terms, asset and liability management, etc.) and an absence of a mechanism to allow for the accommodation of a variety of outcomes. The LTCF is without suitable guidelines in terms of its financing structure and without the capacity or mandate to respond to significant changes in circumstances. Moreover, given the terms of the Administration Agreement signed between NDFC and the Government, there would not appear to have been a full understanding as to how the managing agents would ever have the incentive structure to behave in the fashion required for the project to be a success. For example, NDFC not only earned a significant fee by administering the LTCF in addition to receiving other fees under the subloans, but also was able to use the LTCF money held on deposit with NDFC to shore up its own liquidity needs (at one point, the LTCF constituted 25 percent of NDFC's total deposits). It must be recognized that a project of this nature represents a relatively long chain of interdependent processes, the overall strength of the project is only that of its weakest link.

8.11 Enforcement of Covenants. When two material covenants remained unfulfilled well past the dates stipulated in the Loan Agreement, namely establishing the Fund as an autonomous, commercially-oriented financial institution and finalizing the security package for the APL pipeline, the Bank essentially had no leverage to enforce the covenants. Suspension of disbursements was not a viable option since (i) the funds were disbursed for the APL pipeline prior to the covenant date for finalizing the security package and (ii) the Bank could not suspend disbursements for other subprojects due to noncompliance with the LTCF covenant since these funds were committed to private entities which had nothing to do with the Government's commitment to spin off the Fund. In hindsight, both of these conditions should have remained conditions of loan effectiveness, as originally indicated in the Staff Appraisal Report, or other remedies should have been designed.

8.12 Corruption allegations. When corruption was alleged in some of the sub-projects (especially Hubco), the Bank found it difficult to respond given its multiple roles (i.e. advisor to the Government, lender to WAPDA, indirect lender to IPPs through the LTCF, and guarantor to commercial lenders through

the partial risk guarantees). In the case of the four IPPs financed under PSEDP I and II, and in particular the Hub and Uch projects for which the Bank also provided partial risk guarantees, the Bank was a party to the private sector transaction and was looked upon by both the Government and the private sector as having a positive role to play in resolving the dispute. Standard Bank practice would dictate that the Bank not get involved in commercial disputes; however, the Bank had a responsibility to act once the partial risk guarantees were under threat of being called by the lenders as a result of what was perceived to be government events of default. The difficulty for the Bank was in trying to maintain an "honest broker" role in a situation where different parts of the Bank Group often played conflicting roles: IFC as a lender to IPPs was trying to mitigate its reputational risk vis-a-vis its syndicated B loans; the Project Finance Group in the Bank which was focusing on mitigating calls to the Bank's partial risk guarantee; the country economic team and energy team were concerned about the macro impact and were advising the Government on the reform agenda. Furthermore, IPP sponsors applied pressure on the Bank through their Executive Directors, governments and legislators, whereas the Government applied pressure on the Bank to live up to its zero tolerance policy on corruption and requested assistance in their corruption investigation. Their argument for Bank assistance centered on the Bank's earlier, pervasive role in putting the Hubco deal together and approving the documentation, in addition to being the main advisor to the Government in developing the IPP Policy. In all, this pushed Bank staff and management to play a more proactive role than may have otherwise been the case. However, despite the varied interests of the World Bank Group in the dispute, the Bank's overall objective remained the development of Pakistan and this objective guided the Bank decision making.

8.13 Initially, the Bank had advised the Government to separate the commercial and criminal issues in an attempt to bring the perception of an orderly framework to resolving the IPP disputes. WAPDA was facing severe cashflow problems and was not in a position to honor its payment obligations under the PPAs. In addition, the country's foreign exchange reserves were dangerously low which jeopardized the Government's obligation under the Implementation Agreements to convert rupees into foreign exchange. Some IPPs indicated a willingness to renegotiate in recognition of the country's difficulties, but not under duress and coercive tactics. However, separating the commercial and corruption issues proved difficult to do in practice in the case of Hubco, where the Government/WAPDA was of the view that the original commercial terms were fraudulently obtained. Ultimately, both Hubco and the Government/WAPDA requested the Bank to act as a facilitator in resolving the dispute since attempts by the parties to renegotiate the commercial terms were continuously bogged down in corruption allegations and refutations. Overall, the lesson learned is that governments and governmental agencies should be encouraged to pursue corruption strictly according to law and internationally recognized due process, and in the meantime contractual obligations should be honored.

8.14 Renegotiations. Renegotiating concession agreements is not unusual in the private sector, particularly when prevailing conditions substantially change (e.g. external macro shocks). However, negotiations will more likely result in a prompt and mutually acceptable solutions when they occur in a commercial atmosphere, free of coercion.

9. Partner Comments

(a) Borrower/implementing agency:

COMMENTS BY NDFC
ON
PRIVATE SECTOR ENERGY DEVELOPMENT PROJECT I & II
(LN 2982-PAK AND 3812-PAK)

INTENSIVE LEARNING IMPLEMENTATION
COMPLETION REPORT (DRAFT)

Note: The comments hereunder are restricted to NDFC related components of the ICR.

4. Achievement of Objective and Outputs

4.1.4 The Bank's ICR has rated the outcome of both the Projects as unsatisfactory on the basis that the related economic, financial, institutional and technical aspects fell short of expectations. Although the related economic expectations did not materialize to the level perceived, however, development of financial, institutional and technical aspects was not entirely insignificant. We consider that due cognizance needs to be taken of the sizeable investment in the power sector, elimination / reduction of load shedding and creation of expertise within WPPO, PPIB and PED/NDFC. As such, we consider Bank's assessment as conservative.

4.2.3 & 4 Financial Impact: The Bank has highlighted the currency mismatch, which leaves PSEDP-I&II exposed to adverse exchange rate movements. It needs to be noted that while for PSEDP-I this aspect was totally ignored, however, in PSEDP-II the exchange risk for US$ movement to Pak Rupee was covered. The change in the structuring of PSEDP-II demonstrates a learning curve. Although, the fund is still exposed to exchange risk of currencies other than US $, in future, this exchange risk exposure could be assessed in detail and appropriate mitigants, could be exercised. With regards to interest rate a reasonable level of cushion is available between the weighted average interest rates of the borrowing vis-à-vis on lending to the investment enterprises. As such, the financial impact could be rated as moderate rather than unsatisfactory.

4.2.6 to 4.2.8 Sector Policies: It needs to be acknowledged that the general economic scenario of a country play a pivotal role in achievement of targeted objectives/goals. In case the anticipated/targeted economic development would have materialized, it would have complimented the Sector Policies initiated by the GoP. It was unfortunate that economic development was not able to keep up the pace with the sector reforms or energy policy initiated by the GoP.

4.3 Net Present Value/Economic rate of return: Since Hubco was conceived on the basis that it should remain in the least cost plan, therefore, NDFC's appraisal reports covered ERR. However, the other IPPs were not part of least cost generation plan, therefore, necessity for computation of ERR was felt neither by NDFC nor the Bank.

With regards to financial rates of returns, NDFC's appraisal included an in-depth financial analysis, including IRR calculations of the sub-projects. This stands valid for the restructuring proposals for Rousch and Sepcol submitted to the Bank for its approval.

1

4.5 Institutional development impact: The ICR is critical of NDFC' s appetite of LTCF funds. However, it needs to be acknowledged that it was the weakness in the Administration Agreement (AA), which allowed this situation to happen. Per the terms of the AA, NDFC was required to maintain a separate account for the Fund and this requirement was complied with, however, required attention was not focused towards monitoring of this account.

The issue relating to security of future repayments from borrowing companies is somehow resolved in view of specific instructions from MOF (dated December 2000). Accordingly, an LTCF Deposit Account has been opened with NBP where all future repayments from LTCF borrowers are to be deposited .It may be more appropriate if the Fund's income is deposited with more than one bank. Whilst it may be construed that certain provisioning is required for the Fund's past earnings due to NDFC's current financial standing, however, the performance obligations of GoP are in no way deterred towards the co-financiers. In short, the basis flaw was the absence of set parameters/ policy framework for deployment of LTCF reflows, as this could have been easily established prior to making PSEDP-II effective.

The ICR has also criticized NDFC for letting go most of the senior staff of PED. While some of the senior officers of PED have left NDFC, however, the expertise developed in general is such that it has not created a vacuum with in PED. The learning curve of over a decade has enabled PED staff to professionally respond to the needs of the transaction. The most important feature, which prevailed in PED was the dissemination of knowledge and expertise by the seniors to their juniors. As such, it is too conservative to construe that institutional objectives have not been attained.

5.3.3 Bank has commented that failure of NDFC to provide agreed funding under GoP's directions for PPIB's operations preoccupied PPIB managers. It may be recalled that the issue arose due to an ambiguity in the Loan Agreement 3812-PAK on sharing of Intermediation Spread and differences in its interpretations amongst various parties. NDFC was not the decision making body for resolving this issue. However, NDFC promptly provided workings whenever it was required to do so.

6 Sustainability (6.1.2): It has been stated that financial difficulties faced by NDFC severely jeopardizes the sustainability of Fund. GOP has now established an arrangement (refer Section 4.5 also) and as a result repayments of LTCF borrowers will not be under control of NDFC. Therefore, this issue is resolved except to the extent of LTCF deposits that are with NDFC over last few years. Establishment of framework for future deployment, utilization and hedging of Fund's income can compliment the sustainability.

The other major risk of LTCF's sustainability is ability of LTCF borrowers to make payments in time, which among other things is also dependent on Wapda's performance in terms of meeting its payment obligations. In view of settlement agreements the overall situation has improved although we understand that a great deal of work is yet to be done towards improvement of financial health of the two power utilities.

2

7.6 Implementing Agency (7.61. NDFC): It has been stated that NDFC and GOP failed to act on the establishment of LTCF as an autonomous, commercially oriented institution. As far as NDFC is concerned, this job was never entrusted to NDFC. However, NDFC did provide its input (for instance in preparation of TORs for appointment of consultants) whenever the World Bank or GOP requested it.

7.7.3 While categorizing NDFC's performance as unsatisfactory the ICR did not take due cognizance of NDFC's contribution in overall loan administration of sub-projects during all phases (pre and post financial close) of the projects.

ICR ANNEXURE

Annex- 10. A. Hub Power Project, Para 7: It has been stated that construction was completed in two years (1995-1997). The construction period for the project was 47 months from Effective Date (ED). The ED for the purposes of TKC was December 12, 1992, however, due to delay in financial close and delays in payments to the contractors, Hubco and the contractors agreed an extension of time whereby the period for project's completion was computed from April 30, 1993. With 47 months construction period the targeted completion was March 31, 1997. Commercial operations were officially declared on March 31, 1997 i.e. on schedule.

Annex- 10. B. The Asia Pipeline Ltd (APL) Project, Para 9: It has been stated that APL still owes approximately US$ 10 million to PSO on account of excess tariff charged between November 1996 and July 1998. The actual liability of APL towards PSO is of Rs. 447 million, which at the current change rate of Rs. 61 to US$ 1 translates to approximately US$ 7.328 million.

COMMENTS BY WAPDA

ON

INTENSIVE LEARNING IMPLEMENTATION COMPLETION REPORT (DRAFT)

PRIVATE SECTOR ENERGY DEVELOPMENT PROJECTS I & II (LN 2982 AND 3812-PAK)

TOR FOR COMMENTS BY WAPDA

Our comments are restricted to the WAPDA - related components of the report.

INTRODUCTORY REMARKS

As a result of due diligence carried out by us, we differ with the performance rating of "un-satisfactory" pertaining to WAPDA including WPPO. Despite constraints, including inadequate support from the Bank itself, WAPDA performed satisfactorily. Having embarked upon the power sector restructuring programme and efficiency improvement measures, we can safely forecast a financially viable future for WAPDA and its successors. In our assessment the IPPs programme is very much sustainable. WAPDA's self-assessed rating regarding implementation of PSEDP-I and II is satisfactory.

PARAWISE COMMENTS

- ***'INSTITUTIONAL OBJECTIVES HAVE NOT BEEN FULLY ACHIEVED'?*** **(PARA 4.1.4)**

  As far as WAPDA is concerned, a centre-of-excellence stands created in the form of WPPO. This institution is not only capable of handling the present IPPs but is likely to usher-in further flow of foreign investment during next 25 years, as envisaged by us.

- ***'WAPDA's FINANCIAL PERFORMANCE HAS BEEN POOR'*** **? (PARAS 4.1.2, 4.1.3 AND 4.2.5)**

  WAPDA's financial position stands improved. The total revenue collection target for FY 2000 - 2001 is over Rupees 165 Billion. The target for the period July 2000 to March 2001 has already been exceeded. System losses from a high level of 42% were reduced to 27.3% in FY 1999-2000. The target for the current fiscal stands set at 24.5%. The current figures indicate that the target stands achieved. WAPDA's development programme is back on fast track. Development budget for the FY 2000 - 2001 is over Rs. 20 billion. Ghazi Barotha and Chashma Hydro Project are now on schedule. Payables position is satisfactory.

Public Sector receivables remain a source of concern. The receivables excluding those from KESC as of now stand at Rs. 23 billion. Historically ballooned-up figures of receivables have been right-sized by writing off the excess. Position on public sector receivables is improving, albeit slowly. The present quantum of receivables from KESC is to the tune of Rs. 13 Billion. WAPDA is making following efforts for recovery:

a. Meetings with Finance Division GOP are regularly being held for payment/deduction at source of the outstanding electricity dues of the public sector consumers.

b. Matter was taken up with the Chief Executive of Pakistan in meetings held on June 29, 2000 and August 10, 2000. As per certain decisions amounts payable by the public sector consumers were deducted at source and for the remaining receivables continuous liaison is being kept with the Ministry of Finance.

c. To resolve the current billing disputes the procedure for payments within 90 days was evolved and all the provincial/federal government departments were informed to implement.

d. Meeting held with the Governors of NWFP and Sindh for recovery of outstanding electricity dues including against FATA. Meetings held with Governor of Punjab to expedite the recovery.

e. Meeting held in Ministry of Finance on April 12, 2001 wherein all concerned were instructed to clear the outstanding electricity bills.

f. The matter is continuously being taken up with KESC / Ministry of Finance for the payment of the outstanding KESC electricity dues.

WAPDA has never defaulted on payment to IPPs even at the lowest point of its relationship with IPPs. Presently the 1994 Policy crop of IPPs alongwith HUBCO and KAPCO are enjoying trouble free relations with WAPDA.

The World Bank, itself has through its energy sector mission in Jan-Feb. 2001, expressed satisfaction about the progress on the matrix of agreement and actions under its loan No. 3746-PAK for Power Sector reforms. Almost all activities required of WAPDA and GOP are on the dot. The World Bank through letter dated March 20, 2001 addressed to Secretary Water and Power on the subject of Energy Sector Mission has projected a financially viable future for WAPDA and its successors.

We, therefore, take an exception to the poor rating about the financial performance of WAPDA.

- ***'WAPDA RESORTED TO NEGOTIATING TARIFF WITH MANY IPPs BEFORE THEIR COMMISSIONING'?*** **(PARA 4.2.5)**

It is correct that WAPDA faced difficulty to absorb the financial impact of new IPPs due to the reason that LOS were issued for capacity in excess of requirement and tariff increases/adjustments as demanded by WAPDA were not approved by the Government.

However, it is incorrect that WAPDA resorted to negotiating tariff reductions due to its financial problems. The IPPs requested WAPDA to facilitate in testing / commissioning of the plants beyond the contractual requirements and in return agreed to negotiations of tariff. WAPDA's contention proves correct from the fact that the two AES projects were timely commissioned and accepted without any tariff reductions. They are being paid regularly and are enjoying good relation with WAPDA. On the other hand, the commissioning of the plants of the IPPs who signed MOU were delayed even after signing MOU and allowing relaxations in test specification's. Negotiations were a win-win situation for both parties.

- ***'WPPO SUFFERED FROM TURNOVER IN ITS SENIOR MANAGEMENT'?*** **(PARA 4.5.1)**

The rate of turnover in WPPO might have been high. However, it did not adversely impact performance as there was continuity of command at the level of Chairman resulting in a uniform policy.

- ***'WPPO NEVER DEVELOPED FULL CAPACITY TO IMPLEMENT AND MONITOR THE PPAs'?*** **(PARA 4.5.1)**

WPPO has all the necessary inventory of skills, adequate level of governance, exceptional support from senior most management in WAPDA and a team of highly qualified and dedicated professionals. WPPO has been successfully maintaining continuous trouble-free relation with all IPPs, after resolution of disputes.

- ***'IPPs FACED DELAYS DUE TO FAILURE TO PROVIDE INTERCONNECTION ON TIME'?*** **(PARAS 5.3.1, 7.5.2 & ANNEX-10)**

Interconnection to WAPDA System was provided before schedule in case of HUBCO and SEPCOL. Thus HUBCO Plant stood commissioned ahead of its schedule. The delay in commissioning in SEPCOL was not due to delay in interconnection. Actually SEPCOL could not meet with the technical specifications as evidenced by its thirteen unsuccessful spells of testing before achieving commercial operation. It could attain commercial operation only after relaxation on the technical parameters, granted by WAPDA as a quid-pro-quo for revision of tariff.

In case of ROUSCH and UCH, the delayed commissioning can also not be attributed to any fault of WAPDA. Rather it was their own internal problems that led to delay.

- ***'WPPO DID NOT COOPERATE IN PLANT TESTING / COMMISSIONG'?*** **(PARA 5.3.1)**

As above

- ***'THE QUESTIONABLE ABILITY OF WPPO TO EFFECTIVELY MANAGE ITS COMMERCIAL RELATIONSHIP WITH IPPs'?***
  [PARA 6.1.2(iv)]

Not agreed

- ***'UNLESS THE POWER SECTOR REFORM IS FULLY IMPLEMENTED, THE FRAMEWORK IS UNSUSTAINABLE'?***
  [PARA 6.1.2 (v)]

The Power Sector reforms are being implemented.

- ***'WAPDA's IMPLEMENTATION PERFORMANCE CAN BE RATED AS HIGHLY UNSATISFACTORY'?*** **(PARA 7.5.3)**

WAPDA's implementation capability regarding the PSEDP I & II should, in all fairness, be judged in the backdrop of the performance of the Bank itself and the quality-at-the-entry level of the Project. With hindsight, the bank itself assessed the quality-at-the entry as un-satisfactory and the self - assessed performance of the Bank is also rated as un-satisfactory. Under the circumstance it would have been surprising if WAPDA's performance was otherwise.

(b) Cofinanciers:
None received.

(c) Other partners (NGOs/private sector):
None received.

10. Additional Information

10.1 Please see Annex 10 for a summary of the individual subprojects financed under PSEDP I and II. Table 3 below provides a list of IPPs which achieved financial close under the 1994 Private Power Policy, including details on technology, capacity, and date of commercial operations.

Table 3
Pakistan Private Power Projects
(Projects which achieved financial close)

	Name/Location	Notes	Technology	Capacity Gross (MW)	Capacity Net (MW)	Commercial Oprations Date
1	AES Lalpir Limited Lalpir	/a	Steam turbines on fuel oil	362	351.3*	Nov. 6, 1997 (achieved)
2	AES Pak Gen (Pvt) Co. Lalpir	/a	Steam turbines on fuel oil	365	343.9*	Jan. 2, 1998 (achieved)
3	Altern Energy Limited Fateh Jang, Attock		Flared gas	14	13	Apr. 30, 2000 (estimated)
4	Davis Energen (Pvt) Ltd. Fim Kassar, Chakwal		Gas turbines on flared gas	10.5	9.8	Dec. 31, 2002 (estimated)
5	Eeshatech (Pvt) Ltd Kalar Kahar (Chakwal)		Coal	20	18	Terminated
6	Fauji Kabirwala Power Co. Kabirwala, Dist Khanewal	/d	Combined cycle on gas	157	150*	Oct. 21, 1999 (achieved)
7	Gul Ahmed Energy Ltd. Korangi Town, Karachi	/a /e	Fuel oil	136.17	128.5*	Nov. 3, 1997 (achieved)
8	Habibullah Coastal Power Quetta		Combined cycle on natural gas	140	126*	Sep. 11, 1999 (achieved)
9	Japan Power Generation Off Raiwind Rd, Near Jia Baggo		Diesel engines on fuel oil	120	107*	Mar. 14, 2000 (achieved)
10	Kohinoor Energy Limited Raiwind- Manga Road	/a	Diesel engines on fuel oil	131.44	126*	Jun. 20, 1997 (achieved)
11	Liberty Power Project Daharki		Combined cycle on natural gas	235	211.9	Apr. 30, 2000
12	Northern Electric Co. Ltd. Choa Saidan Shah, Chakwal		Steam turbines on coal	6	5.5	Jun. 30, 2003

13	Power Generation Systems Patoki		Diesel engines on fuel oil	116	110	June 30, 2005
14	Rousch (Pakistan) Power Ltd Sidhnai Barrage Punjab	/b	Combined cycle on fuel oil	412	355.1*	Dec. 11, 1999 (achieved)
15	Saba Power Company Ltd. 9 km from Sheikhupura	/d	Steam turbines on fuel oil	114	109	Dec. 31, 1999 (achieved)
16	Sabah Shipyard Pakistan Ltd. Korangi, Karachi	/e	Fuel oil	288.6	273.6	Terminated
17	Southern Electric Power Co. Raiwind, Lahore	/b	Diesel engines on fuel oil	115.2	112.1*	Jul. 12, 1999 (achieved)
18	Tapal Energy Limited West Karachi	/d /e	Fuel oil	126	125.5*	Jun. 20, 1997 (achieved)
19	Uch Power Limited Dera Murad Jamali	/a /b /c	Combined cycle on low btu gas	586	548*	Oct. 18, 2000 (achieved)
	TOTAL under 1994 Policy			**3455**	**3224**	
20	Hub Power Project Tehsil Hub, District Lasbela	/b /c	Steam turbines on fuel oil	1292	1200	Mar. 31, 1997 (achieved)
	TOTAL incl. Hub			**4747**	**4424**	

/a IFC participation
Dependable Capacity
/b PSEDF participation
/c IBRD Guarantee
/d MIGA participation
/e PPA with KESC

*Actual Initial

Source: Private Power and Infrastructure Board, November 2000

Table 4
PSEDP I and II
Resettlement and Environment Aspects of Subprojects

Name of Project	Resettlement			Environmental Monitoring		ESSA Report	
	Acquisition of Land		People Affected	Sub-projects Reporting Covering Environmental aspects to Lenders	Lenders Engineer supervises environment aspect during site visits and review environmental compliance by IPPs.	Submit by Sponsors to WB	Report cleared by WB and any other
	Privately Purchased	Government Property					
HUBCO	740 Acres acquired no Governmental influence.	717 Acres from GOB	Nil	Semi-annual reporting from the company/Independent Engineer.	Lenders Engineer undertakes site visits on a six monthly basis and review/comments on company's operating reports covering environmental aspects.	Feb. 1993	March 1993
RPPL	144 Acres acquired, no Governmental influence.	No	7-house hold resettled in vicinity of Plant out of 22. These were the sellers of Land. Please refer ASTHR clearance dated May 17, 1996.	Monthly operating report from ESBI and semi-annual reporting from Lenders Engineer.	Lenders Engineer undertakes site visits on a semi-annual basis and review/comments on operating reports covering environmental aspect.	May 1996	May 31, 1996
SEPCOL	48 Acres acquired, no Governmental influence	No	Nil	Quarterly reporting from company as well as Lenders Engineer.	Lenders Engineer undertakes site visit on quarterly basis and review/comment on company's quarterly operating report covering the environmental aspects.	June 1995	Nov. 22, 1995

UCH	78 Acres acquired by GOB from private owner under Land Acquisition Act 1894. And subsequently transferred to the Company.	616 Acres from GOB	NIL	Monthly operating report from the company and semi-annual reporting from Lenders Engineer.	Lenders Engineer undertakes site visit on quarterly basis and review/comment on company's monthly operating report covering the environmental aspects.	June 1995	WB: August 1995 IFC: August 1995 BEPA: Oct. 1995
APL	-	233.18 Acres, out of which 167.7 Acres acquired from GOS, 53.06 Acres is on a 30 years lease, 6.80 Acres belongs to Army & 5.62 Acres is Hubco's reservation.	NIL	Quarterly operating report from company.	Lenders Engineer reviews and comments on company's operating report/performance on an annually basis including environmental aspects.	Oct. 1993	SEPA: subjective approval dated 16-09-1995.

Note:

- **IPPs/Pipeline Project do not have any archaeological resources on or near the site.**

WB = World Bank
IFC = International Finance Corporation
SEPA = Sindh Environmental Protection Agency
BEPA = Baluchistan Environmental Protection Agency
GOS = Govt. of Sindh, Revenue Dept.
GOB = Govt. of Baluchistan

Endnotes

1. This figure does not include the 1,292 MW Hub Power Project which was negotiated prior to the 1994 Private Power Policy.

2. Of the $616 million, $146 million was financed by the Bank under PSEDP I and $110 million under PSEDP II.

3. New gas fields were discovered in the late 1990s, and it is likely that additional gas resources will be made available to the power sector. In fact, studies have been initiated recently to convert existing IPPs to gas, including Hub and Rousch.

4. Under the terms of the PPAs, WAPDA pays a two-part tariff: (i) a capacity charge designed to recover debt service obligations, fixed O&M and equity regardless of generation output; and (ii) an energy charge, covering fuel and variable O&M, only for electricity produced.

5. It should be noted that there is a disconnect in the development objective (DO) rating for the first PSEDP between the last Project Summary Report (PSR) rating dated June 15, 1999 when PSEDP I was rated satisfactory, and this ICR where the DO is rated unsatisfactory. At the time of the last PSR, the summary DO rating was stated as satisfactory based on the Project meeting its first two objectives: mobilizing additional resources for private sector participation in the energy sector, and establishing an incentive framework to encourage such participation. However, the sustainability of the incentive framework was questioned in addition to the sustainability of the project's third objective, establishment of an institutional framework to facilitate the Government's dealings with the private sector.

6. The loan documentation is not particularly clear as to how the repayment amount is calculated, but this is reflected in the interest rates charged and is also the understanding of the various parties. It is also not clear to what extent the foreign exchange exposure was borne by the State Bank of Pakistan through its Foreign Exchange Risk Insurance (FERI) program or by the LTCF. FERI was discontinued in 1994 and since that time the Rupee foreign exchange risk has been borne by LTCF.

7. Currency pool has reflected approximately equal exposure to Dollars, Yen and Deutschmarks (Euros).

8. The loans made under PSEDP I and II would have been obvious candidates for conversion into Dollar denominated Single Currency Loans when the Bank made this option available in 1998.

9. The onlending rates are actually set against the higher of the Bank's lending rate or the US 1-year Treasury Rate.

10. The average bulk tariff set under the 1994 Policy of US¢6.5 kWh for the first ten years was reduced to US¢6.1 per kWh shortly after the Policy was announced following the abolishment of the foreign exchange risk insurance (FERI) scheme by the Government.

11. The ICR does not assess directly the guarantee aspects for the Hub and Uch projects. However, the project Finance and Guarantees Department published an extensive discussion paper in 1997 on "Financing Pakistan's Hub Power Project: A Review of Experience for Future Projects", which is

referenced in this document. ICR Guidelines for guarantee operations are currently being formulated, and it is expected that a separate ICR will be prepared for the stand-alone Uch partial risk guarantee operation.

Annex 1. Key Performance Indicators/Log Frame Matrix

Outcome / Impact Indicators:

Output Indicators:

[1] End of project

Annex 2. Project Costs and Financing

Project Cost by Component (in US$ million equivalent)

[illegible]	[illegible]	[illegible]	[illegible]
Subprojects			
Hubco	1832.00	1555.00	85
APL Pipeline	100.00	85.00	85
Other Projects	447.00		327
Rousch Power		575.00	
Southern Electric Power		147.00	
Uch Power		739.00	
Technical Assistance	11.00	5.00	45
Total Baseline Cost	2390.00	3106.00	
Total Project Costs	2390.00	3106.00	
Total Financing Required	2390.00	3106.00	

Project Cost by Procurement Arrangements (Appraisal Estimate) (US$ million equivalent)
For Subprojects' Components Financed from the Bank Loan

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
HUBCO		30	84*		114
APL Pipeline	30				30
Other Projects	100		**		100
Technical Assistance			5	1	6
Total	**130**	**30**	**89**	**1**	**250**

*Of which US$60 million for standbys and US$24 million for insurance, fees and interest during construction.
**Exact amount of standbys to be determined at financial close.

Project Cost by Procurement Arrangements (Actual/LatestEstimate) (US$ million equivalent)

For Subprojects' Components Financed from the Bank Loan

Hub Power	19.9	25.0		4.7	49.6
APL Pipeline	14.4		5.0	0.6	20.0
Rousch Power	85.2		23.4	11.1	119.7
Southern Electric Power		30.9		4.1	35.0
Uch Power		5.0			5.0
Technical Assistance			4.0		4.0
Total	**119.5**	**60.9**	**32.4**	**20.5**	**233.3**

* Includes civil works and goods procured through due economy and efficiency, consulting services, technical assistance services, training, and incremental staff costs of PPIB engaged on a full time basis for the purposes of the Project.

** Interest charges on subloans accrued during construction

Project Costs by Procurement Arrangements (Actual/Latest Estimate) (US$ million equivalent)

1. Works	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
2. Goods	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
3. Services	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
4. Miscellaneous	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
5. Miscellaneous	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
6. Miscellaneous	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Total	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)

1/ Figures in parenthesis are the amounts to be financed by the Bank Loan. All costs include contingencies.

2/ Includes civil works and goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds to local government units.

Annex 3: Economic Costs and Benefits

Annex 4. Bank Inputs

(a) Missions:

Stage of Project Cycle	No. of Persons and Specialty (e.g. 2 Economists, 1 FMS, etc.)		Performance Rating	
Month/Year	Count	Specialty	Implementation Progress	Development Objective
Identification/Preparation				
-	-	-		
Appraisal/Negotiation				
-	-	-		
Supervision				
07/95	*1*	Private Sec. Dev. Specialist	HS	HS
	1	Energy Specialist		
04/96	*1*	Private Sec. Dev. Specialist	HS	HS
	1	Energy Specialist		
07/96	*1*	Private Sec. Dev. Specialist		
	1	Energy Specialist		
	1	Consultant		
04/97	*1*	Project Advisor	HS	HS
	1	Private Sec. Dev. Specialist		
04/98	*2*	Financial Analysts	S	S
03/99	*2*	Financial Analysts	S	U
	1	Capital Markets Specialist		
02/00	*1*	Financial Analyst	U	U
	1	Capital Markets Specialist		
ICR				
02/00	*1*	Financial Analyst	U	U
	1	Power Engineer		

(b) Staff:

Stage of Project Cycle	Actual/Latest Estimate	
	No. Staff weeks	US$ ('000)
Identification/Preparation	55.8	164.9
Appraisal/Negotiation	20.6	92.9
Supervision	119.8	354.7
ICR	12.0	45.0
Total	208.0	657.5

Annex 5. Ratings for Achievement of Objectives/Outputs of Components

(H=High, SU=Substantial, M=Modest, N=Negligible, NA=Not Applicable)

	Rating
☐ *Macro policies*	○ *H* ○ *SU* ○ *M* ○ *N* ● *NA*
☐ *Sector Policies*	○ *H* ○ *SU* ● *M* ○ *N* ○ *NA*
☐ *Physical*	○ *H* ● *SU* ○ *M* ○ *N* ○ *NA*
☐ *Financial*	○ *H* ○ *SU* ○ *M* ● *N* ○ *NA*
☐ *Institutional Development*	○ *H* ○ *SU* ○ *M* ● *N* ○ *NA*
☐ *Environmental*	○ *H* ○ *SU* ○ *M* ○ *N* ● *NA*
Social	
☐ *Poverty Reduction*	○ *H* ○ *SU* ○ *M* ○ *N* ● *NA*
☐ *Gender*	○ *H* ○ *SU* ○ *M* ○ *N* ● *NA*
☐ *Other (Please specify)*	○ *H* ○ *SU* ○ *M* ○ *N* ● *NA*
☐ *Private sector development*	○ *H* ● *SU* ○ *M* ○ *N* ○ *NA*
☐ *Public sector management*	○ *H* ○ *SU* ○ *M* ○ *N* ● *NA*
☐ *Other (Please specify)*	○ *H* ○ *SU* ○ *M* ○ *N* ● *NA*

Annex 6. Ratings of Bank and Borrower Performance

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HU=Highly Unsatisfactory)

6.1 Bank performance	*Rating*
☒ *Lending*	○ *HS* ○ *S* ● *U* ○ *HU*
☒ *Supervision*	○ *HS* ○ *S* ● *U* ○ *HU*
☒ *Overall*	○ *HS* ○ *S* ● *U* ○ *HU*

6.2 Borrower performance	*Rating*
☒ *Preparation*	○ *HS* ○ *S* ● *U* ○ *HU*
☒ *Government implementation performance*	○ *HS* ○ *S* ● *U* ○ *HU*
☒ *Implementation agency performance*	○ *HS* ○ *S* ● *U* ○ *HU*
☒ *Overall*	○ *HS* ○ *S* ● *U* ○ *HU*

Annex 7. List of Supporting Documents

1. Supervision reports, including Form 590/Project Status Reports of PSEDP I and II (1990 - 2000)
2. Staff Appraisal Report for Pakistan Private Sector Energy Development Project, Report No. 7226-PAK (June 10, 1988)
3. Staff Appraisal Report for Pakistan Second Private Sector Energy Development Project, Report No. 13006-PAK (October 28, 1994)
4. Staff Appraisal Report for Proposed Expanded Cofinacing Operation to Partially Guarantee up to US$240 Million of a Syndicated Commercial Bank Loan of US$360 Million Equivalent to The Hub Power Company, Report No. 9004-PAK (October 29, 1991)
5. Memorandum of the President for the ECO Partial Risk Guarantee for the Hub Power Company (October 28, 1994)
6. Loan Agreement (Ln. 2982-PAK) for the Private Sector Energy Development Project (August 8, 1988 as amended)
7. Loan Agreement (Ln. 3812-PAK) for the Second Private Sector Energy Development Project (December 20, 1994 as amended)
8. *Policy Framework and Package of Incentives for Private Sector Power Generation Projects in Pakistan*, Government of Pakistan (March 1994)
9. *Policy for New Private Development Projects*, Government of Pakistan (July 1998)
10. Guidelines for the Operation of the Private Sector Energy Development Fund (modified date December 26, 1994)
11. Administration Agreement for the Private Sector Energy Development Fund between the President of the Islamic Republic of Pakistan acting through the Ministry of Finance and Economic Affairs (the Government) and National Development Finance Corporation (January 14, 1989)
12. *Financing Pakistan's Hub Power Project: A Review of Experience for Future Projects*, by Michael Gerrard, RMC Discussion Series Paper, Number 118, August 1997
13. Memo from Director, Quality Assurance Group to Vice President, South Asia on "Post-Approval Quality at Entry Assessment: Final Report" dated August 8, 1997

Annex 8. Beneficiary Survey Results

Annex 9. Stakeholder Workshop Results

Private Sector Energy Development Project

Stakeholders Workshop
(February 16, 2000)

Participants (approximately 50):
Donors: IFC, JBIC, World Bank
Commercial banks: ANZ, Citibank
GOP and GOP Agencies: MoF, MWP, EAD, NDFC, OGDC, PPIB, WAPDA
Private Sector IPPs: AES, Fauji Power, Hubco, Japan Power Generation, Kohinoor, Rousch, Saba Power, Sepcol, Tapal, Uch.

1. The World Bank representatives opened the meeting by thanking the different parties for accepting the invitation. Following which, a brief presentation was made on the objectives of the workshop, the agenda, and possible topics for subsequent debate.

2. The NDFC representative made a presentation in which he first discussed the history of LTCF over 1985-2000. He subsequently noted that project activities were handicapped by the high turnover of staff in the different agencies of GOP involved with the Projects. He made a number of recommendations regarding the power sector (NEPRA should have been made operational prior to embarking on the IPP program; distribution could have been privatized prior to generation; resolution of tariff issues should have priority); and LTCF (LTCF ought to expand its activities to other sectors; GOP exposure is too high in large projects; balance sheet financing can be observed in one of the IPPs; procurement requirement can be cumbersome, particularly when they apply to a contractor selected through a negotiated process, who has to observe specific bid rules for the subcontracts). He concluded by advocating that LTCF reflows should be used to finance relatively high risk infrastructure projects (not necessarily in energy), and that the existing institutions be strengthened.

3. The PPIB representative first presented the salient features of the 1994 Power Policy and submitted *inter alia* that fixing the tariffs in advance reduced the scope of negotiations to a considerable degree and enabled the conclusion of 19 transactions over a two-year period. However, this prevented GOP to profit from the subsequent decline in the price of equipment. As a result of slow demand growth, the IPPs are not dispatched as anticipated, with the result that average tariffs are higher than what they should be – the higher tariff was also caused by higher fuel prices. While the developers were allowed to select the fuel, technology and location of their plants, this should be considered against the background of load shedding prevailing at the time. Furthermore, against an expectation of 1,500 MW worth of capacity which would close under the 1994 policy, in excess of 3,000 MW were awarded (the Government extending deadlines in some instances). Following a review of the 1995 Hydel and 1995 Transmission policies (which failed to bring projects), the PPIB representative discussed the 1998 Power Policy, which provides for the processing of solicited as well as unsolicited proposals. He concluded by stating *inter alia* that 1994 Power Policy's successful results can also be attributed to PSEDP; TA (legal) provided under PSEDP helped conclude transactions on a timely basis; PSEDP was essential in the creation of present institutional framework; salary cuts, downsizing and non payment of 0.25 basis points impacted PPIB adversely; PSEDP should help WAPDA resolve issues of WAPDA's high tariff and surplus capacity problems; World Bank did not display due diligence in forecasting load growth, resulting in the financing of excess capacity.

4. The WAPDA representative stated that the energy supply and demand gap remains, except that the country has moved from an energy deficit to an energy surplus. That is because the tariff adjustments necessitated by the commissioning of IPPs did not take into account the impact on consumers. Hence, unless private generation results in a decline in generation cost, the whole exercise would be futile. The World Bank ought therefore to focus on how to reduce costs to stimulate demand. This could be achieved through tariffs reform, or privatization of distribution (provided that it results in lowering costs). In balance, the 1994 Policy was effective in eliminating load shedding, and created incentives to complete projects on a timely basis and to operate power plants to high standards; furthermore, WAPDA no longer has to bear the costs of project delays; lastly foreign capital has been attracted, and tariffs will decline once the senior debt is retired. On the other hand, the WAPDA representative remarked *inter alia* that letters of intent were issued without ascertaining first affordability and justification; a high bulk tariff was promised instead of proceeding on the basis of price-based bids; developers could select the site, technology and fuel, while the tariff remained the same in all cases; tariffs are all indexed, and adjustments are a pass through, for which compensation is not covered in the retail tariffs; developers are charging for debt service provisions on a monthly basis, while payments to lenders are due twice yearly; PPA were issued without WAPDA being consulted; and BOOT are preferable to BOO given that at the end of the PPA period, the country has paid the debt, and the shareholders, compensated.

5. The Hubco representative stated that WAPDA was afflicted with lacking revenue collection, theft and high losses in its system. Under the circumstances, insufficient attention had been given to the restructuring of WAPDA, the introduction of independent regulation, and the privatization of generation and distribution assets. Furthermore, PPIB was emasculated at some point, so that its effectiveness as an agent of reforms had been weakened. With respect to the World Bank, the Hubco representative noted the decisive contribution made by the Bank to set up the institutional framework, and provide a financial instrument in Rs, together with the Partial Risk Guarantee which allowed the containment of certain risks; on the other hand, he regretted that, following closure, unlike commercial banks, the World Bank has not established a monitoring system - more generally, there has been a drastic reduction in World Bank involvement which precluded it from taking a proactive role as facilitator (with the authorities); he also noted a lack of continuity in World Bank staff concerned with the Project.

6. The IFC representative noted that the excess supply was not unique to Pakistan, but was also apparent in Central America. A solution that could help both Pakistan and the IPP industry would involve the implementation of a bidding system for energy, on a weekly basis. This would lead to operational savings (because at present too many plants are being dispatched at a low load factor), and does not require modification of contracts. Hence, this represents a "Win Win" situation for the country.

7. Subsequently a general discussion followed.

Additional Annex 10. Review of Subprojects

Pakistan

Implementation Completion Report - PSEDP I & II

The Subprojects

A. Hub Power Project

Background

1. The Hub Power Plant consists of four generating units with a total installed capacity of 1,292 MW and burns residual fuel oil, supplied by Pakistan State Oil (PSO). A project development company, the Hub River Power Group (HRPG) Limited, was formed comprising five sponsor companies: Xenel (Saudi Arabia), National Power (UK), Mitsui (Japan), Ishikawajima-Harima Heavy Industries (IHI), and K&M Engineering and Consulting. The operating contractor is National Power (now International Power) of the UK.

2. At the time the Bank approved PSEDP I, the pipeline of subprojects available for LTCF financing included a number of power generation projects. Of these, the Hub Power Project was the most advanced in its negotiations. It became the first private sector build-own-operate (BOO) power project in Pakistan.

3. Work on developing the project began in summer 1987 and a detailed feasibility study was begun in April 1988. Construction of the station began on the basis of mobilization finance in December 1992, which allowed construction to start prior to the financing package. The project's total finance package became irrevocably committed in September 1994, by which time the project had suffered two events causing significant slippage in its timetable: the Gulf war (1990-91) and a Pakistan court ruling on the applicability of Shariah Law to the payment of interest (1991-92). Financial close was achieved in January 1995 - almost eight years after the initiation of project development. See Table 1 below for key milestone activities in project development.

Table 1: Key events and activities in project development

Year	Event
1987	Sponsors submit proposal Initial site is selected
1988	Government issues letter of intent to project sponsors Detailed feasibility study is completed Bank approves the PSEDF Ministry of Water and Power's Private Power Cell is established
1989	Implementation agreement between the government and Hubco and power purchase agreement between WAPDA and Hubco are negotiated and initialed National Development Finance Corporation's Private Energy Division is established

1990	Fuel supply agreement between Pakistan State Oil and Hubco is negotiated Re-tender of turbine island is effected
1991	Construction contract is signed Arranger banks are mandated ECO program is approved by the Bank
1992	Mobilization finance is arranged Construction is started
1993	Commercial bank and ECO guarantee term sheets are signed Commercial bank due diligence is completed
1994	Commercial bank debt is underwritten and syndicated Equity is underwritten and placed Bank and JEXIM approve guarantee facilities
1995	Financial close

4. The turnkey construction contract was signed in July 1991 following the reconstitution of the construction consortium. The original construction consortium was led by Mitsui Co. of Japan and included three other Japanese firms: (i) Ishikawajima-Harima Heavy Industries Co. Ltd (IHI) for the supply of the boilers; (ii) Toshiba for the overall engineering and the supply of the turbo generators; and (iii) Kumagai Gumi for civil works. The sponsors selected British Electricity International (BEI)[1] of the UK and Canadian Utilities Power (CUP) of Canada for the operations and maintenance of the complex. Due to delays and other various reasons, Toshiba, Kumagai Gumi and CUP could not renew the validity of their prices beyond March 31, 1990 which required the sponsors to reconstitute its construction consortium. BEI accepted full responsibility for the operations and maintenance, and Campenon Bernard of France was selected to replace Kumagai Gumi for civil works. Following the Bank's International Competitive Bidding procedures, Ansaldo GIE of Italy was awarded the contract for overall engineering and turbine generators (replacing Toshiba).

5. Subsequent to the signing of the turnkey contract in 1991, the sponsors and the Government negotiated a revised tariff that reflected changes that had occurred in the construction contract, the terms of finance, and exchange rates since December 1989 (the date of the previous tariff agreement). The revised tariff adhered to the reopeners and indexation provisions that were outlined in the previous tariff agreement.

6. The contractor was mobilized in December 1992, two years prior to financial close. Mobilization finance played a crucial role in maintaining the project's timetable for delivering power to the Pakistan grid and in avoiding the potential cost increases that would have followed the expiration of a turnkey contract price offer. It also created unstoppable momentum to the project development effort. Mobilization finance in the amount of about US$423 million was advanced by (i) the Bank and the governments of France and Italy in the form of term loans through the LTCF; (ii) local banks in the form of bridge loans; (iii) the Commonwealth Development Corporation through a term loan; and (iv) the project sponsors through equity contributions.

7. The fourth and final unit of the Hub Power Project was completed three weeks ahead of schedule on March 7, 1997. Commercial operations were officially declared, on schedule, on March 31, 1997. The actual capital cost of completing the project was slightly below budget. The pipeline connecting the station to the oil import terminal was commissioned in October 1996, with an installed capacity sufficient for a 2,000 megawatt power station. In terms of simple chronology, the time taken to develop Hub was eight years (1987-1995), while construction was completed in two years (1995-1997).

Project Cost and Financing

8. The total estimated cost of Hub was US$1.8 billion comprising: development and start-up costs of US$217 million, a turnkey construction contract of US$1 billion, financing costs of US$355 million, and standby funds of US$221 million. The project was completed within budget. All base loan facilities were drawn substantially as envisaged in the finance plan, but no standby loan facilities were drawn.

9. The initial financing plan was based on equity provided by sponsors and investors of US$372 million and borrowing of US$1.4 billion. This comprised subordinated debt of US$601 million (US$375 million from PSEDP I and US$197 million from PSEDP II) and senior debt of US$738 million. The senior debt included a Bank ECO guarantee facility for US$240 million (including US$40 million of standby financing which was never utilized). See Table 2 below.

Table 2: Summary of Original Finance Plan

Source of Financing	**Amount[a] (US$ million equivalent)**			
	Base		**Standby[d]**	**Total**
Equity		372		
Senior Debt				
World Bank ECO Guaranteed Facility	200		40	
JEXIM Guaranteed Facility	100		20	
COFACE Guaranteed Facility	45			
MITI Guaranteed Facility	86			
SACE Guaranteed Facility	195			
Commonwealth Development Corporation	37			
Rupee facility	75		25	
Subtotal		738		
Subordinated Debt				
PSEDP I[b]	322		53	
PSEDP II[c]	114		83	
Subtotal		436		
Total Base Financing		1,545		
Revenue During Construction		63		
Subtotal				1,608
Standby Financing[d]			221	
Total Base + Standby				1,830

[a] Figures are in end-1993 dollar exchange rates. In practice sources and applications of finance are in multiple currencies.

[b] of which IBRD, $146 million including standby financing.

[c] of which IBRD, $110 million including standby financing

[d] Standby finance was not drawn

10. The financing plan was designed to mobilize the longest maturity and cheapest finance terms possible in order to achieve an acceptable tariff throughout the project life. The major constraint on the finance plan was the limited and, in the case of the longer maturities, nonexistent availability of foreign-currency, commercial bank term loans for private enterprises in Pakistan without co-financier support. The availability of LTCF formed a fundamental part of the financing plan. The World Bank participation was essential to the banks joining the project in syndication. PSEDP I and II, which included funding from the World Bank and JEXIM, in addition to funding from the governments of France and Italy, provided 30 percent of project funding. Through the ECO partial risk guarantee, the Bank supported 29 percent of senior term finance.

11. The actual completed cost of the project was about US$1.6 billion[2] compared to the original estimate of US$1.8 million, as the standby financing was not required. The basic financial structure and amounts raised for the project did not vary significantly from the estimate in the Bank's appraisal report. The main deviation was in the amount of subordinated debt funding from LTCF since it fell from US$601 million to US$445 million, mainly due to the stand-by facilities not being required. Senior debt funding rose slightly to US$742 million.

12. The equity was raised from four sources: (i) the promoting sponsors, US$163 million; (ii) Commonwealth Development Corporation (CDC), US$8 million; (iii) a local share issue on the Karachi Stock Exchange for US$30 million; and (iv) Global and American Depositary Receipts for US$170 million.

13. The senior debt used comprised seven facilities:

(i) Under the ECO guarantee, a syndicate of 34 banks provided US $146 million;
(ii) Under the JEXIM guarantee, a syndicate of 19 banks provided US$116 million;
(iii) Under the COFACE insurance, a syndicate of seven banks provided US$52 million;
(iv) Under the MITI insurance, a syndicate of 17 banks provided US $99 million;
(v) Under the SACE insurance, a syndicate of 18 banks provided US $224 million;
(vi) a loan from Commonwealth Development Corporation (CDC) provided US $39 million; and
(vii) A syndicate of nine Pakistani banks and other institutions provided rupee facility of US$66 million.

Tariff

14. The initial Power Purchase Agreement (PPA), signed in August 1992, set out the tariff principles. Subsequently, an **indicative** tariff was agreed with WAPDA on May 1, 1993 with the understanding that it would be adjusted prior to financial close. The tariff set at financial close is referred to as the **reference** tariff. This reference tariff was indexed and adjusted on the commercial operations date. In 1994, two amendments to the PPA were signed; the first incorporated the indicative tariff and changed the tariff schedule in the PPA. The second amendment provided agreement on the reference tariff, granted Hubco the same concession as other IPPs on import duties, and made a change to timing of foreign exchange adjustments to the tariff. The reference tariff established at financial close has increased in Rupee terms due to increases in fuel prices, inflation and devaluation of the Rupee.

15. The average tariff for the first 10 years is US¢ 6.54/kWh and US¢5.80/kWh on a levelized basis over the life of the project. The tariff payable by WAPDA has a two-part structure and is separated into capacity and energy payments. The capacity charge was designed to generate sufficient cash both to service the debt and pay agreed fixed costs, together with the return on equity. It included the project development, construction contract, and financial costs. The energy price was a variable payment depending on the net

amount of energy actually dispatched by WAPDA. It is composed of the actual cost of fuel (61%), fuel surcharge and taxation (34%), and variable O&M (5%).

16. The tariff is front-loaded. For the first two years, the front-loading reflects: (i) the creation of the escrow, reserve, and collateral accounts required by the financiers; and (ii) the Foreign Exchange Risk Insurance (FERI), the insurance premium paid to the State Bank of Pakistan. The tariff also reflects debt service. As the loans are repaid, the tariff will progressively decrease from US¢7.42 / kWh in 1999 to US¢5.63/ kWh in 2005. The tariff will decrease further in 2015 to US¢5.47 when the subordinated debt has been repaid.

17. LTCF contributed to a lower levelized tariff since it was instrumental in extending the overall maturity of debt finance. For the Hub project, the commercial banks were willing to provide construction finance with maturity up to only twelve years. The LTCF provided for loan maturities of 23 years, nearly twice that of commercial banks.

The Hubco Dispute

18. Following accusations of corruption, Hubco, the largest IPP operating in the country, has been involved in several disputes with WAPDA and the Pakistani authorities since mid-1998 largely centering on the validity of the amendments to the Power Purchase Agreement and the level of the tariff. Government officials have alleged that the agreements with Hubco were corruptly obtained or otherwise fraudulent, in particular the amendment to the Power Purchase Agreement that substantially increased the price of electricity produced during the first years of plant operation.

19. Hubco denies that corruption has taken place and considers that these charges were being used to coerce the company to lower its tariff. Hubco has sought assistance in resolving its disputes with GOP and WAPDA through international arbitration but has been restrained from doing so through injunctions sought by WAPDA in the local courts. (A summary of Hubco's legal disputes is summarized in the box below.) At the request of both Hubco and GOP, the Bank facilitated meetings between the parties to resolve the disputes in a neutral environment.

Summary of Hubco Legal Disputes

On May 8, 1998 a pro bono publico constitutional petition was filed in the Lahore High Court (LHC) against the Company. The Petitioner challenged the decision of the Government and WAPDA to enter into the Power Purchase Agreement (PPA) on the grounds that the tariff was discriminatory in favor of the Company. The Petition also accuses the Government, WAPDA and the PPIB of having acted malafide and fixed a tariff which was unjustifiable.

At the request of the Petitioner, the LHC issued interim orders, which were subsequently amended by the Supreme Court (SC), that prohibited the Company from making distributions from reserves as of December 31, 1997 to shareholders and restricted the fixed element of the tariff to a maximum of Rs. 845 million per month plus billing in respect of Energy Purchase Price. Although directed by the SC to dispose of the matter by the end of 1998, the petition has not been fixed for hearing so far. The petition is being contested by the Company which believes that it is without merit.

In a related action on July 9, 1998, pursuant to the PPA, the Company filed a request for arbitration in the International Court of Arbitration of the International Chamber of Commerce (ICC for hearing in London seeking a declaration that Amendment No. 2 to the PPA is valid and that WAPDA is bound by its terms. The Tribunal was fully constituted in mid-January 1999. The Tribunal first met on February 22, 1999 but could not proceed as the Company was restrained by a Pakistani court order from participating in the proceedings. Subsequent attempts to convene have also proved abortive for the same reason.

On October 11, 1998 WAPDA alleged that the Supplemental Deed dated November 16, 1993 and Amendments Nos. 1 and 2 of the PPA dated February 24, 1994 and September 17, 1994, respectively are void *ab initio* because they were said to have been procured by unlawful means. WAPDA is claiming in addition the repayment of Rs. 16 billion allegedly overpaid. The Company has rejected the allegations made by WAPDA and has included these issues in the ICC Arbitration. The Company had issued notices to WAPDA under the PPA which could result in the termination of the PPA. Corresponding notices had also been issued in respect of the Implementation Agreement (IA) and the Fuel Supply Agreement (FSA). These notices could lead to the termination of the PPA and, as a consequence, of the IA which event would entitle the Company (and through the Company the shareholders of the Company) to compensation as set out in the IA. However, the operation of these notices were subsequently suspended by the Supreme Court of Pakistan by an order passed on an application moved by WAPDA. The operation of the notices continues to be suspended to date.

In aid of its request for arbitration, the Company filed suit in the High Court of Sindh in November 1998, requesting the Court to direct WAPDA to proceed to ICC arbitration and restrain WAPDA from taking any proceedings except ICC arbitration. In March 22, 1999 WAPDA was directed to proceed to arbitration by the Court which was appealed by WAPDA. The Appellate Court suspended the earlier order and also restrained the Company from proceeding to arbitration. Challenges by the Company were filed and hearings on that issue concluded in June 1999 and judgment was reserved.

By an order on August 11, 1999 the Court stated that it would hear the Company application with WAPDA's appeal and also continued the restraint on the Company to proceed with the ICC arbitration. The Company petitioned the Supreme Court against this order. The Company's petition was converted to an appeal on October 27, 1999 and heard by a five member bench of the Supreme Court.

On June 14, 2000 the Company's appeal was dismissed by the Supreme Court by a majority of 3 to 2 and the Company was restrained from invoking the arbitration clause of the PPA for the purpose of resolving its disputes with WAPDA through the agreed forum of ICC arbitration. On July 10, 2000 the Company filed petition in the Supreme Court seeking a review and reversal of the majority judgment of June 14, 2000.

(Source: summarized from The Hub Power Company Limited, Annual Report 2000)

Settlement

20. In parallel with the legal proceedings related to the dispute playing out in the local courts, Hubco, the Government and WAPDA held various meeting during 1998-2000 in an attempt to resolve their outstanding issues - often facilitated by the Bank at the request of both parties. Through bilateral discussion, the parties finally concluded a negotiated settlement, and on December 17, 2000, a Settlement Agreement was signed by the Government of Pakistan, WAPDA and Hubco which will result in a tariff reduction. Under the Agreement, the parties agreed to reduce the levelized tariff charged by Hubco from 6.5 to 5.6 cents per kilowatt hour by bringing down the capacity purchase price (CPP) from 4.45 cents to 3.36 cents per kwh. The CPP is the fixed component of the tariff which is paid regardless of whether or not electricity is produced by the plant. The tariff reduction involves one element of the CPP, "Project Company Equity (PCE)" as defined in the Power Purchase Agreement. The initial assessment reveals that the drop in the tariff will be largely accommodated through a reduction in the project equity rate of return from 18 percent to around 12-14 percent. The Settlement Agreement affirms the Power Purchase Agreement and the right to arbitration in accordance with the contract. It was also agreed that all criminal investigations will be completed, and the parties will meet and agree the mechanism for the disposal of all civil and criminal cases. The Agreement is subject to approval by the Federal Cabinet, WAPDA Authority, Lenders, the Company's Board of Directors and the Company's shareholders approval in a general meeting. All actions and approvals are to be completed by March 31, 2001. Under this Agreement, WAPDA undertook to closely cooperate with Hubco to ensure that the "Lenders concerns regarding current and future debt service payments are fully met." Lenders will have to analyse the implications of the terms of the Settlement Agreement on future cashflows, before determining whether a restructuring of the debt is warranted.

Project Evaluation

21. Hub was a landmark project in the world-wide development of the IPP industry and was a prototype for Independent Power Producers in Pakistan. It was necessary to draft from scratch, then negotiate about 200 separate original project agreements and documents. In addition, many documents had to be drafted and negotiated twice as the circumstances changed, i.e. changes in government, sponsor group, or construction group. The documents that proved most time-consuming were the Power Purchase Agreement, the Implementation Agreement, and the creation of LTCF.

22. However, the project's history is not simply about its development. More importantly, it provided the foundation to an entire policy initiative by both the Government of Pakistan and the Bank. In most other countries that have attempted such a fundamental reform - inviting large-scale private investment in what had hitherto been an exclusively public industry - the reform had been preceded by the enactment of enabling legislation. In the case of the Hub project, the Implementation Agreement assumed the role of this legislation, so the project sponsors and the Bank became inextricably involved in the complex discussions that such a structural reform involves.

23. The Hub Power Project occasioned many "firsts" for Pakistan, the Bank and the international financial markets. For Pakistan, it was the first private infrastructure project and the first limited recourse financing. For the Bank, it was the first private infrastructure project, Bank-financed infrastructure fund (the LTCF) to support private projects, partial risk guarantee under the ECO program, ECO guarantee with another institution (JEXIM), and the use of the ECO program to support a private project. For the financial markets, it was the first major private infrastructure project in a sub-investment grade developing country to be financed by international commercial banks on a limited recourse basis, the first international equity offering (global depository receipt) and underwriting for a developing country infrastructure project

under construction, and the first stock market floatation of a single power station under construction.

24. Any delays can be attributed to the project's novelty, size, and complexity as well as to several force majeure events. If allowances were made for time lost through the following unforeseen events, then the active period of project development in terms of real time was closer to five years:

- the Gulf War (1990-91),
- a Pakistan court ruling on the applicability of the Shariah Law to the payment of interest (1991-92),
- disruption caused by having to reconstitute the construction consortium following the departure of two of its members (1990), and
- occasional losses of continuity attending several changes of government in Pakistan.

25. At the time the plant was placed under WAPDA load dispatch, the output capacities and efficiencies of all units performed at or above guaranteed levels. Throughout the first winter of operation (1996-97), the commissioned units operated at almost full output. The station's contribution to the reduction of load shedding in Pakistan was then widely acknowledged.

26. However, starting in 1998, as WAPDA's cash flow problems intensified, WAPDA began to look to IPPs for tariff relief[3] As the largest IPP, Hubco became a focus for the Sharif government. Over the last two years, there was a widening perception by WAPDA and some government officials, that the Hubco project was one-sided, unaffordable to Pakistan and that corruption must have been involved.

27. Hub, a truly pioneering project, was at one time seen as the flagship private sector project in Pakistan, and laid the groundwork for future IPP development not only in Pakistan, but other developing countries as well. Subsequently, however, the Government's tactics in pursuing allegations of corruption, which were perceived by the company and its investors as being a form of organized harassment aimed at reducing the tariff, undermined foreign investor confidence in Pakistan and damaged the country's reputation. Almost two half years after the first allegation charges were made, Hubco, the Government and WAPDA agreed to a settlement whereby, *inter alia*, the tariff level will be reduced and all criminal and civil cases will be disposed.

Endnotes

1/ British Electricity International became National Power International (UK).

2/ Given the use of over six currencies in both the financing and procurement arrangements, the dollar equivalent is an approximation.

3/ The financial difficulties of WAPDA were exacerbated by many IPPs coming on stream simultaneously, at a time when demand did not grow as anticipated.

B. The Asia Pipeline Ltd (APL) Project

Background

1. Asia Petroleum Ltd (APL), created in 1994, is owned 49 percent by Pakistan State Oil (PSO), a Government-owned company involved in the distribution of petroleum products; 26 percent by Asia Infrastructure Ltd (AIL), a Singapore company involved in project development; 12.5 percent by Veco Engineers and Construction (VECO), a USA engineering firm; and 12.5 percent by the Independent Petroleum Group (IPG), a Kuwait company involved in petroleum trading. The company was set up to build, own and operate the pipeline carrying residual fuel oil from the PSO-owned Pipri oil terminal to the Hub power plant. The World Bank was instrumental in assembling the consortium, and ensuring that the Hub power plant would be supplied with fuel on a timely basis.

2. It was intended initially that: (i) Promet, a Singapore company whose main shareholders at the time were also AIL's, would build the pipeline; (ii) VECO, one of the sponsors would be entrusted with the operation and maintenance of the pipeline; and (iii) IPG would supply the crude oil. Eventually, Promet built the pipeline, but other arrangements were introduced for the exploitation of the pipeline and the procurement of crude.

3. Given the need to provide comfort to the senior lenders of Hub, the Implementation Agreement (IA) and the Fuel Transport Agreement (FTA) were initialed in Washington in September 1994; and the Engineering, Procurement and Construction (EPC) contract with Promet was signed in January 1995, close to the conclusion of the Security Package for Hub. Since then, negotiations have continued over the Security Package for the APL pipeline, and a revised version of the IA was initialed in October 1999. The issues which remain to be settled are the transfer of the right of way to APL and the force majeure provisions in the IA (i.e. events outside the control of APL, such as the conversion of Hub to natural gas, changes in the tax regime, route changes, results of political events etc.). As a result, the project has not yet reached financial close from a project security interest point of view, although the funds have been fully disbursed, and loans are being repaid.

Project Implementation

4. The project consists of an 82-km, 14 inch insulated residual fuel oil pipeline and related pumping station with a capacity of 3.5 million tons (MMT) per annum (of which 2.5 MMT were earmarked for Hub, and 1.0 MMT for another power plant which was not built).

5. The project was expected to be completed in 18 months, i.e. by June 1996. Due to delays in the acquisition of rights of way, the project was completed five months late, so that it began operating in November 1996 (the first unit at Hub started to operate in June 1996 and the fourth in March 1997). The pipeline was certified by several consulting engineers and has been operating satisfactorily since its commissioning.

Project Cost and Financing

6. The cost of the project was initially estimated at US$95 million - the pipeline was eventually completed at a cost of approximately US$85 million. The Project was financed through shareholder's equity (approximately US$35 million); a long term loan of US$20 million under PSEDP II made available in January 1996 (prior to financial closure); and short term borrowings (approximately US$30 million) arranged through local commercial banks.

Tariff

7. The initial tariff was set at US$70,000/day on a provisional basis. In July 1998, the tariff was revised to US$12.13/ton for the first 1.5 MMT per annum, and US$8.49/ton for any excess. The initial tariff was designed to allow the company to reach a return on equity of 25 percent, which was subsequently reduced, by mutual agreement, to 16 percent.

8. The tariff is equivalent to the standard road hauling charges prevailing in 1996 for a similar distance, expressed in Rupees. The relatively high charges are also explained by the characteristics of the residual fuel oil, which is viscous, hence costly to transport over long distances.

9. One should note that APL has been able to retire the short term debt (US$30 million) out of its revenue. APL still owes approximately Rs447 million to PSO on account of excess tariff charged between November 1996 and July 1998, as well as storage fees. APL expects to refinance those charges following financial closure.

Evaluation

10. The Bank made the transfer of the rights of way to APL, as well as the conclusion of the security package, conditions of PSEDP II. The Staff Appraisal Report makes these a condition of effectiveness. In the Loan Agreement (Section 3.05), they are subject to a dated covenant (initial target date was January 31, 1995). At the same time, it allowed the disbursement of US$16 million (subsequently increased to US$20 million) towards project execution, prior to the two conditions being fulfilled. This action was deemed necessary to allow the pipeline to be built in time for the commissioning of the Hub power plant (otherwise heavy penalties would have been claimed by the sponsors of Hub).

11. As a result of not reaching financial closure, the shareholders of APL have not been able to draw dividends; the shares of APL have not been listed on the Karachi Stock Exchange; and the company has not been able to initiate new activities effectively (such as the distribution of CNG).

C. Uch Power Limited (UPL)

Background

1. The Uch Power project, jointly supported by IBRD and IFC, is a 525 MW (586 MW ISO rating) gas-fired, combined-cycle power plant, located in the Province of Balochistan, at an estimated base cost of $630 million. The project uses low to medium-Btu gas from the nearby Uch gas field which, because of its low energy content, has no other economic use except dedicated power generation. The project sponsors are Midlands Electricity (UK, 40%), Tenaska (USA, 30%), General Electric Capital Corporation (USA, 18%), Hawkins Oil and Gas (USA, 9%) and Hasan Associates (Pakistan, 3%). The design, supply and construction of the plant was arranged under a fixed price turnkey contract with GE Power Systems and Chinese equipment and engineering firms from Harbin, China for a EPC contract price of US$347 million. The plant is operated by ESBI of Ireland.

2. UPL was incorporated as a public company on July 7, 1994. A Letter of Support was issued by NDFC in March 1995. WAPDA agreed to purchase the capacity and energy output of the project from UPL under a 23-year power purchase agreement (PPA) signed on November 23, 1995; similarly, OGDC agreed to supply the gas under a 23 year Gas Supply Agreement signed on November 2, 1995. In addition, UPL entered into an Implementation Agreement (IA) on November 19, 1995 under which the Government guarantees the payment obligations of WAPDA and OGDC, and assures the performance of the State Bank of Pakistan for convertibility and availability of foreign exchange. (The contractual framework was similar for all IPPs under the 1994 Private Power Policy.) Financial closure was achieved on May 17, 1996. Under the terms of the agreement, commercial operations were expected to begin on March 1, 1998.

Project Implementation

3. Project completion has been delayed by over two years due to technical difficulties by OGDC with the gas facility, various disputes with WAPDA and GOP, and GE related equipment problems. Gas supplies from OGDC, which were due to be provided by October 1997, were not provided until June 30, 1999. Connecting the plant to WAPDA transmission system was delayed from August 31, 1997 to January 10, 1999. Delays were also caused by the issuance of a Notice of Intent to Terminate (NIT) by the GOP in July 1998 on grounds of corruption. (This was one of seven NITs issued to IPPs by the GOP on grounds of corruption in addition to two Termination Notices on technical grounds. All IPPs denied the corruption allegation, and the NITs were subsequently withdrawn following a settlement to lower tariffs.) All of these delays led to the demobilization of the contractors from May to December 1998 and again from August to November 1999. In addition, the EPC contractor experienced some technical difficulties in testing the plant in early to mid 2000 which also delayed the commercial operations date. On April 18, 2000, UPL and WAPDA signed a Memorandum of Understanding in which, among other things, (i) WAPDA agreed to use all reasonable efforts to achieve the Commercial Operations Date (COD) on or before June 1, 2000; (ii) UPL agreed to lower the levelized tariff; and (iii) the term of the PPA was extended from 23 to 30 years. Commercial operation was declared on October 18, 2000. UPL signed a Withdrawal Agreement and a Settlement Agreement on November 3, 2000 with WAPDA and PPIB which, respectively, withdraws the Notices of Intent to Terminate issued by GOP and WAPDA and resolves differences with respect to liquidated damages owed by each party. The sponsors are in the process of negotiating with the EPC contractor and OGDC on liquidated damage claims and finalizing the financial restructuring agreement with the lenders.

Project Cost and Financing

4. The project cost was estimated to be US$630 million (excluding US$60 million in stand by funding). The financing was based on a 80:20 debt:equity ratio amounting to total equity of US$130

million and total debt of US$500 million (see table below). The US$313 million of senior debt was provided through a US$153 million loan guaranteed by US Eximbank, an IFC 'A' loan of US$40 million, an IFC 'B' loan of US$60 million, and a US$60 million commercial loan supported by an IBRD partial risk guarantee. LTCF provided a US$187 million subordinated loan, of which US$5 million was provided by the Bank under Ln.3812-PAK.

5. The cost of the project has now increased by US$86 million to about US $716 million due to delays in commissioning the plant. The cost overrun is proposed to be funded principally by the equity investors (US$61 million), LTCF (US$42 million in the form of capitalized interest), the Bank's ECO facility (US$15 million), and IFC (US$15 million) - most of which was already provisioned for in the form of standby financing.

Original vs. Revised Project Cost and Financing Plan[a]

Cost: USD million	Orig.	Rev.	Funding: USD million	Orig.	Rev.
EPC Contract	347.0	355.2	IFC - A Loan	40.0	40.0
Project Development	42.4	53.0	IFC - B Loan	60.0	72.0
Land	0.6	0.6	WB Guaranteed Facility	60.0	75.0
Spare Parts	12.0	11.2	US Eximbank Facility	153.0	135.0
Insurance	11.0	12.8	LTCF[b]	187.0	199.0
Start up, training & admin.	47.0	75.4	US Exim - $97.0		
IDC & financial expenses	140.0	207.8	Bank of China - $80.0		
			World Bank - $5.0		
			JEXIM - $5.0		
			Equity	130.0	185.0
			Liquidated Damages Rec'd		10.0
	630.0	716.0		630.0	716.0

[a] Original financing plan does not include US$60 million of standby financing, $30 million in equity standby and $15 million each under the IFC B Loan Facility and the World Bank Guaranteed Facility. Revised figures are estimates as the financial restructuring has not yet been finalized.

[b] Increase in LTCF funding is through the capitalization of interest.

Tariff

6. The original tariff agreed in the PPA was an average of US¢ 6.05 per kWh for the first 10 years and the levelized price was US¢5.58 per kWh. In a Memorandum of Understanding signed on April 18, 2000 between UPL and WAPDA, UPL agreed to a reduced average tariff of US¢ 5.77 over the first ten years and levelized tariff of US¢ 5.13 over 30 years.

Project Evaluation

7. The Uch project was completed over two years behind schedule and has experienced similar problems with completion to other IPPs. As a result of the delays, the project economics have deteriorated significantly, which together with the reduced tariff, has necessitated a financial restructuring of the Project. The IRR on equity has been reduced from 25 percent to about 10 percent. The project is currently in default (interest and principal payments under the Financing Facilities have been missed) and is operating under the terms of an Interim Agreement which provides for a standstill period during which lenders have agreed not to take any action against UPL while the restructuring is being worked out.

8. The Uch Project remains the cheapest of the four power plants supported by the LTCF with a cost of US$1,169 per kW. From the country point of view, because of the use of low quality indigenous gas, this project is perhaps the most economic among all of the IPPs. The World Bank and IFC played a key role in financing this project. IFC provided US$115 million in A and B loans; World Bank's partial risk guarantee, US$75 million; and the LTCF, US$188 million. The combination of these funds provided over 70 percent of the total loans for the Project.

D. Rousch (Pakistan) Power Limited (RPPL)

Background

1. Rousch (Pakistan) Power Limited was established pursuant to the Government of Pakistan's 1994 Private Power Policy to build, own and operate a 412-MW combined cycle residual fuel oil fired power generating station at Sidhnai Barrage in Southern Punjab. The plant, comprising two gas turbines and one steam turbine, has been designed to facilitate easy conversion to a gas-fired facility using indigenous pipeline quality gas. The plant has been designed and constructed by Siemens AG and Siemens Pakistan with ESB International undertaking the operation of the plant. The sponsors of the Project are the Rousch Companies, Siemens Project Ventures BmbH (Germany) and ESBI (Ireland).

2. An Implementation Agreement (IA), Power Purchase Agreement (PPA), and Fuel Supply Agreement were all signed during 1995 with the financing agreements signed on March 31, 1996. The Bank approved Rousch as an eligible sub-project under Ln. 3812-PAK on May 31, 1996. The Government of Pakistan acknowledged financial close at the end of July 1996, and construction commenced in September 1996 with commercial operations scheduled for March 1998.

Project Implementation

3. The March 1998 commercial operations date (COD) was contingent on the Interconnection and Transmission Facilities being made available by WAPDA by August 1997. As a result of WAPDA delays to provide interconnection and subsequent refusal to permit synchronization, (i) the EPC contractor slowed down the pace of work and in July 1998 began demobilization after initiating a plant preservation program; and (ii) Rousch issued Notices of Intent to Terminate the IA and PPA on October 28, 1998. Permission to synchronize the gas turbines was finally given in February 1999 with commercial operations rescheduled to commence by the end of September 1999. However, technical difficulties with the heat recovery steam generators delayed COD a further 72 days. The Project achieved COD on December 11, 1999 - 21 months behind schedule.

4. Despite certification by the independent engineer, WAPDA did not acknowledge the achievement of COD citing various technical difficulties and declined to pay the capacity charges. The Project Company was of the opinion that this was a strategy on the part of WAPDA to gain tariff reductions and was aware, that in other IPPs, WAPDA had successfully negotiated tariff reductions, following which invoices submitted by those IPPs were paid in a timely manner. Therefore, Rousch negotiated an acceptable tariff reduction which was documented in a Memorandum of Understanding (MOU) with WAPDA dated January 14, 2000. Under the terms of the MOU, (i) WAPDA acknowledged that COD was achieved on December 11, 1999; (ii) the levelized tariff was reduced from 5.578 ¢/kWh to 5.188 ¢/kWh (iii) both WAPDA and Rousch agreed to withdraw their claims for liquidated damages for delays in commissioning and testing; and (iv) Rousch agreed to withdraw the Notices of Intent to Terminate the PPA and IA.

Project Cost and Financing

5. The project was estimated to cost US$450 million (excluding a US$50 million stand by facility). Financing was provided from the LTCF through a subordinated loan of US$140 million equally provided by the Bank and JEXIM, in addition to a Rupee standby facility equivalent to US$40 million arranged by NDFC on its own account. Export credit agencies from Germany (Hermes and DEG) and ANZ Bank and Siemens-guaranteed commercial loans provided US$183 million in senior debt financing for the project. Equity contributed by the sponsors amounted to US$137 million, including US$10 million in standby funding.

6. The delays in project completion led to additional financing costs and also unbudgeted preservation expenses, operations costs and company costs. At the end of December 1999, the final project cost was expected to be US$575 million, an increase of US$125 million over the estimated cost. (More than 45% of the cost overruns was as a result of additional interest incurred during the extended construction period of 21 months.) This increase was funded by additional equity from sponsors of US$51 million and an additional US$41 million from LTCF (US$12 million of which was in the form of capitalized interest) as part of a financial restructuring agreement. The remainder was provided by the senior lenders. Agreement was also reached with lenders, including LTCF, to extend loan maturities under the refinancing package. The conditions precedent under the refinancing documentation were met in October 2000 which enabled Rousch to draw on the additional LTCF facility.

Original vs. Revised Project Cost and Financing Plan (December 1999)[a]

Costs: USD million	Orig.	Rev.	Funding: USD million	Orig.	Rev.
Construction Costs	369.00	369.00	Commercial	137.00	148.28
Add'l Construction Costs		23.40	Hermes	33.00	34.80
O&M Costs	9.00	16.43	DEG	13.00	12.85
Overheads	5.20	20.97	Working Capital		10.50
Financing Costs	50.80	94.51			
Inventory		8.45	Existing LTCF	140.00	140.00
Other	9.00	14.86	Additional LTCF		40.83
Net Project Costs	443.00	547.63			
Float [b]		14.31	Equity	127.00	187.88
Initial Operating Costs	7.00	12.94			
	450.00	574.88		450.00	574.88

[a] Of the total US$455 million original base project cost, US$140 million was approved under LTCF which was to be co-financed 50:50 between the Bank and JEXIM. Because the Second JEXIM PSEDP II loan was not in place at the time of the Rousch financial close, the Bank agreed to disburse its portion of the subloan (i.e. $70 million) ahead of JEXIM with JEXIM disbursing its half after the Bank. As a result, the full $70 million from the Bank was drawn down by the time of financial restructuring, but only US$49.3 out of a total of US$70 million was drawn down from JEXIM. As the GOP was in arrears to JEXIM, JEXIM refused to allow the remaining US$20.7 million to be drawn down. Therefore, the Bank agreed to finance the remaining balance of JEXIM's portion to cover original costs in addition to US$29 million needed to meet the cost overruns to be financed under LTCF as part of the refinancing/rescue plan.

[b] Float is a cash balance that has been committed by Sponsors to provide the Company in the form of equity, enabling it to meet the first debt servicing.

Tariff

7. The original tariff agreed was US¢5.98/kWh on a 10-year average basis and US¢5.57/kWh on a levelized basis. The company finally resolved technical difficulties with WAPDA when it agreed to reduce the tariff in a Memorandum of Understanding signed on January 14, 2000. This provided for a revised tariff of US¢5.80/kWh on a 10-year average basis and US¢5.19/kWh on a levelized basis.

Project Evaluation

8. The project was one of the larger IPPs approved under the 1994 policy guidelines - only Uch was larger. It was the only plant to use combined-cycle technology burning fuel oil. After two years of operation on fuel oil, it was expected to be able to switch to gas. The completion delays of about 21 months have increased the cost of the project by US$125 million. The cost overruns together with the reduction in

tariff necessitated a financial restructuring of the project. Additional capital requirements have been met mainly by the project sponsors and through supplementary funding from LTCF. In addition, senior lenders have extended the final maturity of the commercial facilities by three to six years and amended the amortization profiles to match the available cashflow. Cost per kW installed has increased from US$1,092 to US$1,395. The IRR on equity has been reduced from about 18 percent to about 6 percent after tax due to the reduced tariffs and the increased costs arising from delays in completion.

9. No GOP allegations of corruption were made against Rousch. Nevertheless, it does appear that WAPDA created delays in providing interconnection, permitting testing and commissioning of the plant, principally to compel the company to renegotiate the tariffs.

10. Rousch managers acknowledged the key role played by NDFC/LTCF in securing funding for the Project.

E. Southern Electric Power Company Limited (SEPCOL)

Background

1. Southern Electric Power Company Limited (SEPCOL) was approved by the Bank as an eligible sub-project under Ln. 3812-PAK on November 4, 1996. SEPCOL received a letter of support from the GOP on August 3, 1994 and undertook to construct an IPP comprising 5 x 23.4 MW diesel engines with a gross capacity of 117 MW operating on residual fuel oil supplied by Pakistan State Oil company (PSO). The plant (at Raiwind near Lahore) was supplied and installed under a fixed price turnkey contract for US$92.2 million, by a consortium led by ABB Kraftwerke AG (Germany) with SEMT Pielstick (France) and Zelin Pakistan (Pvt) Limited. The plant is operated by B.C. Hydro International Power Development Corporation (Canada). The project is sponsored largely by overseas investors led by a subsidiary of B.C. Hydro International Transpower Corporation (Canada) which subsequently was partially acquired by SNC Lavalin Equity of Canada.

2. SEPCOL signed a 22 year PPA with WAPDA on November 17, 1994 and an Implementation Agreement with GOP on November 23, 1994. Financial closure was achieved on October 25, 1995. The project was scheduled to begin commercial operations on December 28, 1997.

Project Implementation

3. The project started trial runs in December 1997 and Commercial Operation Testing (COT) from January 9, 1998. However, the plant could not clear the Reliability Run Test (RRT) per PPA requirements. There were altogether 11 successive RRT/COT failures between January to April 1998. On July 9, 1998, GOP issued a Termination Notice to SEPCOL on technical grounds which led to the demobilization of the EPC Contractor from the site. Following extensive negotiations, SEPCOL and GOP signed a Withdrawal Agreement on January 8, 1999 through which GOP withdrew its termination notice and the company withdrew its case from international arbitration. After the signing of the Withdrawal Agreement, the project company remobilized the EPC contractor, increased its efforts to prepare the plant for testing, and ultimately achieved commercial operations on March 10, 1999.

4. However, WAPDA refused to accept the results of the test and disputed the commissioning of the plant. In order to resolve the dispute, the Project Company entered into negotiations with WAPDA and also submitted a revised reduced tariff proposal. On July 12, 1999 a Memorandum of Understanding (MOU) was signed between WAPDA and SEPCOL resolving all issues regarding tariff and commissioning of SEPCOL Power Station. The salient features of the MOU are as follows: (i) WAPDA accepted commissioning of the plant as of March 10, 1999; (ii) the project offered a reduction in the tariff such that the levelized tariff has been reduced to US¢ 5.19/kWh from the original US¢5.57/kWh; and (iii) the project life was extended to 30 years from 22 years.

Project Cost

5. The capital cost of the project at financial close was estimate at US$121 million. In addition, the sponsors provided US$5.8 million as a standby provision to meet contingencies. The project was financed by SEPCOL shareholders who have contributed US$27 million as equity. Sanwa Bank (Japan) and ANZ-Coface (Paris) provided senior debt of US$57 million; subordinated loans for US$35 million were provided by LTCF.

6. As a result of the 14 month delay in project completion, costs increased to US$155 million. Almost half of this increase relates to additional interest during construction and financing fees. The cost

overrun is being financed by the sponsors (US$6 million), senior lenders/guarantors (US$22 million), and additional funding from the LTCF (US$7.8 million).[5]

Original vs. Revised Project Cost and Financing Plan

Costs: USD million	Orig.	Rev.	Funding: USD million	Orig.	Rev.
Construction Costs	91.3	94.1	ANZ-Coface Credit	35.0	35.0
Owners Costs	6.8	9.6	Sanwa Bank Japan	22.0	22.0
Insurance	1.4	1.9	Nissho Iwai Corp.		4.0
Contract Mgmt Fee	2.2	2.5			
			LTCF [a]	35.0	42.8
Other	4.5	10.6			
			Equity	27.0	33.0
Financing Costs	13.8	29.9			
Initial Working Capital	1.0	6.2	Working Capital		7.8
			Other [b]	2.0	10.3
	121.0	154.8		121.0	154.9

[a] While the Bank had provided its no objection to financing part of the cost overruns from LTCF under PSEDP II, the project company could not meet all of the conditions precedent under the refinancing documents in time to allow funds to be drawn down under Lnl 3812-PAK. Therefore, the Government agreed to allow NDFC to use the accumulated reflows to LTCF to meet the additional financing needs of SEPCOL.

[b] Includes interest income, liquidated damages payable by the contractor and pre-operating energy fees.

Tariff

7. The original tariff agreed in the PPA was US¢6.1/kWh on a 10-year average basis or US¢ 5.58/kWh on a levelized basis. This tariff was reduced on July 12, 1999 in return for WAPDA dropping all disputes and agreement on the COD. The revised tariff is US¢5.8/kWh on a 10-year average basis and US¢5.20/kWh on a levelized basis.

Project Evaluation

8. This project was the smallest (117 MW) of the four IPPs supported under the Private Sector Energy Development Projects. With a high unit cost (US$1,342 per kW), it is unlikely that this sub-project would have been a least-cost project for WAPDA although it fit within the criteria of the 1994 Private Power Policy and the PSEDP Loan Agreement. The plant cost per kW is almost as high as the Rousch project, a combined-cycle plant, with higher cost technology. There were also serious difficulties experienced in testing and commissioning the plant which led to payments by the contractor of US$5.5 million in liquidated damages. The project was completed 21 months late, and as a result, costs increased by US$34 million or about 28 percent. The overall development experience was not substantial considering the small size of the project, and the fact that diesel plants are normally simple to install and a well proven technology compared to more complex, combined-cycle plants. The estimated IRR on equity has been reduced to 14 percent based on the revised tariff.

Additional Annex 11. Borrower's Contribution

GOVERNMENT OF PAKISTAN

PRIVATE SECTOR ENERGY DEVELOPMENT PROJECT I

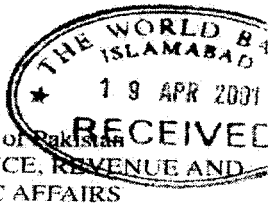
BORROWER'S CONTRIBUTION

PREPARED BY

THE NATIONAL DEVELOPMENT FINANCE CORPORATION

GEN-SUPVN

بسم الله الرحمن الرحيم



No. 5(5)WB/94
Government of Pakistan
MINISTRY OF FINANCE, REVENUE AND
ECONOMIC AFFAIRS
(ECONOMIC AFFAIRS DIVISION)

Telegram : ECONOMIC
Telex : ECDIV No : 05-634

Islamabad, the 18th April, 2001

SECTION OFFICER
TELE:9201437

Subject: PRIVATE SECTOR ENERGY DEVELOPMENT PROJECTS I AND II (Ln. 2982 and 3812-PAK) INTENSIVE LEARNING IMPLEMENTATION COMPLETION REPORT:

Dear Mr. Wall,

Kindly refer the World Bank's letter dated March 16, 2001 regarding the above subject.

2. With regard to the Implementation Completion Report (ICR) exercise for the above mentioned two projects, I am enclosing the Borrowers (Government of Pakistan) contribution to the ICR which has been prepared by the National Development Finance Corporation (NDFC) and has been approved by the Finance Division.

Regards.

Yours sincerely,

(ADIL AKBAR KHAN)

Mr. John Wall,
Country Director ,
Pakistan & Afghanistan South Asia Region,
World Bank Resident Mission,
ISLAMABAD

BORROWER'S SECTION OF
PSEDP I&II Implementation Completion Report - Borrower's Views

Introduction:

A World Bank mission visited Pakistan from February 7 - 17, 2000 to initiate the preparation of the Private Sector Energy Development Project I&II ("PSEDP I&II" or the "Project") Implementation Completion Report (ICR).

In this context the mission met with different parties and reviewed inter alia; i) the effectiveness of the institutional arrangements for the Projects implementation ii) the national policies underlying the introduction of private power, iii) the selection criteria for project eligibility, iv) the time frame for the implementation of selected projects, v) the financial and operational impact of introduction of private generation, and vi) the arrangements for Project operations.

GOP agreed to the mission's suggestion that NDFC take the lead role in drafting of the borrower's section of the ICR and that EAD would coordinate the writing of the report which would include inputs received from PPIB, Wapda, and other Project participants.

Methodology:

NDFC in consultation with EAD wrote to various Project participants falling in the following categories:

i) Main players such as MW&P Wapda, KESC, PPIB, LTCF, PSO, and OGDC and institutions collaterally related to Project such as State Bank of Pakistan, National Insurance Corporation of Pakistan.
ii) Sub-Projects, which had availed LTCF funding.
iii) All other IPPs which were reported by PPIB to have achieved Financial Close.

To foster a focused discussion, each stakeholder was requested to comment on specific aspects of the Project as well as to express views on its own area of operation and/its role in carrying out the Project.

The list of institutions approached questions addressed to them, the status of replies received and the questions addressed to them are summarized in Annex-I.

NDFC intended to complete the draft ICR within the time frame proposed by the WB, however, responses from different institutions were rather slow. Even after reminders, all institutions did not response.

Project Background and Project Objectives:

In November 1995, GOP first announced its policy of encouraging Private Sector (PS) participation in the development of power generation in November 1985. Two years later the policy was further developed in consultation with the Bank and GOP announced a plan to increase PS participation in energy production. The plan's main premises included: (i) 5% projected annual growth rates for main sectors of the economy during the 7th and 8th Plan periods (1989 - 1998); (ii) increase in energy consumption at 7% and 6% during the 7th Plan and 8th Plan periods respectively; and (iii) expected shortages of energy after allowing for realistic levels of investment by the public sector.

The targets for incremental production capacities to be financed through PS investment in the energy sector during the 7th and 8th Plan periods are summarized below:

	7th Plan (1989-93)	8th Plan (1994-98)
Power Generation	2,300 MW	2,400 MW
Coal Production	2 m. tpa	3 m. tpa
Natural Gas	132 MMCFD	200 MMCFD

A study undertaken by the WB, through consultants with a view to identify constraints that could hinder the achievements of these targets recommended:

(a) Strengthening the institutions responsible for evaluation and approval of PS proposals;
(b) Creating a vehicle to provide long term financing for PS investments; and
(c) Designing a framework of incentives for PS development of energy.

Based on these recommendations the GOP:

(a) Created the Private Power Cell (PPC) in the Ministry of Water & Power (MW&P) and the Water & Power Private Organization (WPPO) within the Water and Power Development Authority (WAPDA);
(b) approved setting up of a Private Sector Energy Development Fund (PSEDF), to be administered by the National Development Finance Corporation (NDFC);
(c) Formalized and strengthened the scheme of incentives for PS investment in the energy sector.

These efforts of GOP were supported and complemented through the WB's Private Sector Energy Development Project I & II (collectively "the Project"). PSEDP I was launched in 1988 and to further build on the base developed, PSEDP II was launched in 1994.

In 1988, the WB Board approved PSEDP-I (Loan 2982-PAK) to provide US$ 150 million for financing the Fund (PSEDF). The loan was co-financed to the extent of US$ 314 million by USAID, Nordic Investment Bank and the Governments of France, Italy, Japan and UK.

The specific objectives of PSEDP I were: (a) mobilizing resources for confinancing private sector investments in energy development to contribute towards the achievement of objectives of the 7th and 8th Plans; and (b) setting up an institutional framework to sustain PS investment and operation in the energy sector.

GOP and the WB signed the Loan 2982-PAK on August 1988 which had following key features:

Total Amount:	US$ 150 million
Project Components:	**Part A:** Investment Projects earmarked for sub-project meeting the eligibility criteria for equipment, works and IDC.
	Part B: Technical assistance component of US$ 4.0 million for training and consultancy services.
Closing:	December 31, 1994 (was extended to December 31, 1999)

Utilization: The entire component for the sub-projects was utilized for Hubco. At Financial Close of Hubco a total amount of US$ 146 million was sanctioned from Loan 2982-PAK. Hubco utilized an amount of US$ 115.95 million and as the Project was completed under budget, Hubco cancelled the balance of US$ 30.05 million from this loan.

The Technical Assistance Component was utilized to the extent of US$ 0.83 million only.

PSEDF-II objectives were: (a) to continue to assist the GOP in mobilizing the additional resources required to develop the energy sector through the PS participation; and (b) to build on the institutional and policy framework established to facilitate the PS in the energy sector.

The US$ 250 million Loan Agreement 3812-PAK was signed in December 1994 between the GOP and the WB. PSEDF-II was co-financed to the extent of US$ 436.58 million by Japan Eximbank, US Eximbank, Government of France and Bank of China.

Amount: US 250 million

Project Component: **Part A:** For sub-projects; sub-loans to meet the cost of goods, services and interest and other charges accrued during construction.

Part B: For institution building; cost of consultants' services, training and equipments.

a) to replenish the PSEDF (LTCF) to provide funds to Hubco, APL and other eligible projects related to power generation and energy related infrastructure;

b) fund the continued operation of PPIB and LTCF; covering staff, consulting services, training, equipment & services;

c) fund other consultancy services to:

i) assist GOP to outline the mandate for PPIB its management and reporting structure;
ii) to ensure formulation of LTCF as an autonomous commercially oriented LTCF.

Closing: The loan was closed on October 31, 2000.

Utilization: Out of total available funds of US$ 250 million under Loan 3812-PAK, an amount of US$ 233 million has been utilized, canceling the balance of US$ 16.73 million.

Evaluation of Objectives:

The Project objectives had defined specific production goals for incremental capacities through PS for production of power, gas and coal. The Project also sought to build and strengthen institutional capabilities and develop a policy framework to support the implementation of energy projects in the PS.

As the Project's physical targets were developed to complement the overall national energy plan for the 7th and 8th Five Year Plans therefore, they could said to be pragmatic and well founded though they were inherently constrained by the success in achieving the overall macro-economic objectives. With respect to the institutional objectives and creation of a framework these were an essential corollary for achievement of the physical objectives.

For facilitating PS investors in the power sector the Project envisaged strengthening the existing PPC in the MW&P while in a similar arrangement, the Coal Mining Cell (CMC), was proposed in the Ministry of Petroleum and Natural Resources (MP&NR) for the coal sector. No analogous arrangement was defined for the gas sector, perhaps because MP&NR was already conversant with dealing with private investors. Also, while the WPPO was established in Wapda no parallel body was envisaged for KESC.

The objectives developed for the Project were primarily based upon past rates of economic growth and increase in the energy consumption, and may not have fully considered that as energy production and distribution historically enjoyed direct and indirect individuals subsidies, consumption levels may not support production delivered at prices considerably higher than the past.

Achievement of Objectives:

As the principal Project executing agencies involved in actual implementation on behalf of GOP were PPIB, Wapda (WPPO) and NDFC, their assessment of the Project's outcome are given in this section. (The letters of various participants conveying their views on the Project are available in NDFC's file. Due to limitations of the size and the report's structure the replies have been abridge and edited.) Given the Project's structure, it is not surprising that the views of various government controlled organizations are somewhat dissonant; they should not be seen as representing GOP's comprehensive and unified position.

Private Power and Infrastructure Board (PPIB):

PPIB has viewed the PSEDP program as an overall success. The GOP with support of the WB was able to develop a policy framework which resulted in a large inflow of foreign investment in the energy sector as well as establishing an enabling institutional framework. PPIB feels that it was able to successfully implement the 1994 Power Policy, which resulted in 19 IPPs with a combined capacity of 3,000 MW achieving Financial Close, by acting as an effective interface between the private developers and GOP/Wapda/PSO/OGDCL.

Following the 1994 Policy PPIB also undertook implementation of the 1995 and 1998 hydel policies, though neither of these could match the success of the 1994 Policy.

Based on the benefits of long tenors and Rupee repayment facility available under the PSEDF sub-loans, PPIB believes that IPPs should have been able to offer lower tariffs to Wapda. Also in PPIB's opinion the Lenders should have made a better assessment of Pakistan's power requirements thus avoiding the present oversupply situation.

On the question of problems faced by IPPs in project implementation PPIB has observed that generally the developers could have avoided these through better planning and execution. However, problems relating to foreign exchange availability, withholding tax, exchange rate parity could have been mitigated to a great extent if a single institution, like PPIB, was authorized to take decisions on behalf of GOP in coordination with the concerned government agencies also keeping in view the contractual obligations under the concession agreements.

The major lesson of the Project in PPIB's view was that adoption of ICB process for specific identified projects would have ensured greater transparency as well as competitive tariffs. Also, various factors influencing the success of PSEDP, such as cost of generation, projected demand and supply, financial and fiscal regimes provided to investors, should have been carefully evaluated.

The views expressed by PPIB have been endorsed by the Ministry of Water and Power.

Water and Power Development Authority (Wapda):

The views expressed by Wapda on the Project are focused on the tariff disputes that emerged about three years back with Hubco, and other IPPs as the Projects approached completion.

Commenting on the objective of PSEDP, Wapda expressed the view that it was to bridge the energy supply and demand gap through private sector participation at an affordable price. This objective was achieved to the extent of 5000 MW additional IPP capacity being available to the National Grid, however, as the country has ended up with surplus power the demand supply gap has not been really bridged suitably.

In Wapda's opinion while concentrating on "Supply of Energy", affordable tariff for the utility and the ultimate consumers were ignored. Apart from the effects of a recession hit economy, the high cost of electricity has resulted in the tapering of demand.

Summing up the lessons of the Project, Wapda has asserted: "Unless the involvement of private sector in energy sector does not reduce cost of the product, the whole exercise would prove futile." Looking to the future, Wapda feels that the main focus of World Bank's PSEDP should be on how to reduce costs of energy to stimulate demand. Towards this end, Wapda has made the following suggestions on future utilization of funds available in PSEDF:

a) promotion of tariff reforms, which could help in stimulating demand;
b) meaningful privatization of the distribution sector with the objective of lower costs firmly in mind; and,
c) reduction of interest rate softening the terms of loans in the existing IPPs.

Karachi Electric Supply Corporation (KESC):

KESC, the utility responsible for generation and distribution in Karachi and surrounding areas, had signed nine PPAs totaling over 2000 MW under the 1994 Power Policy. Only three projects achieved Financial Close and two, with a combined capacity of 250 MW, reached commercial operations.

In KESC's view due to lower economic growth than envisaged under the 1994 policy the present generation capacity and committed additions are likely to be sufficient upto 2003. Due to drying up of loan availability for its own generation projects the IPPs helped in reducing the demand-supply gap in KESC's network during the years 1998 and 1999 and created a maintenance reserve for its stations.

The 1994 Policy allowed free choice of site, fuel and technology to developers. This led to IPPs choosing sites in proximity to KESC's own power stations, thus increasing the vulnerability of the transmission system, and selection of diesel engine based plants, which allowed early project completion but from KESC's perspective do not offer base load stability. Also, in KESC's view though the 1994 Policy was simple, allowing an upfront bulk tariff, and therefore attracted investment, it suffered from some basic

flaws such as not requiring ICB and permitting tariff adjustment for both inflation as well as Rupee depreciation. Other drawbacks of the private power program were that the large number of incentives offered (government performance guarantees; tax and duty waivers) attracted private investors looking for windfall gains rushed to set up projects and frequently adopted coercive tactics to ensure early signing of agreements.

KESC has acknowledged that as a consequence of the power sector being an exclusive public sector domain many distortions and anomalies had resulted. One positive effect of induction of private generators is that now public sector utilities are better aware of market realities and competition with the IPPs is expected to lead to better management of public assets.

Oil and Gas Development Company Limited (OGDCL):

OGDCL has limited its comments to its experience with the Uch Power Limited (UPL) project. The Uch gas field has been developed by OGDCL with a financial outlay of US $ 270 million and is expected to generate revenues in the range of US$ 54 to 83 million annually, depending on load factor achieved by UPL. However the continued wrangling between WAPDA and UPL and UPL's problems with its contractors and lenders delayed commissioning of their project for quite a while.

OGDCL has emphasized that despite fulfilling all its contractual obligations UPL has refused to accept gas deliveries.

National Development Finance Corporation (NDFC):

The formation of a separate division within NDFC for PS energy project and its staffing by professional staff was one of the requirements under Loan No. 2982 PAK. The Private Energy Cell of NDFC provided a nucleus for the new division, the Private Energy Division (PED), set up in 1988.

Under the Administration Agreement signed between the GOP and NDFC in January 1989, NDFC was designated as the Administrator of the Private Sector Energy Development Fund established through the proceeds made available by a number of international funding agencies. In 1994 PSEDF was renamed as the Long Term Credit Fund ("LTCF" or the "Fund"). During its initial year PED benefited from the training and technical assistance provided by outside consultants as well as two resident consultants financed by USAID.

As administrator of the LTCF, NDFC is responsible for appraising, approving financing, supervising and monitoring eligible PS Projects.

LTCF funding for power projects was only considered after the sponsors had obtained a Letter of Support (LOS); and execution of concession documents between the Project company and relevant counter parties and satisfactory contractual arrangements for equipment and construction were conditions precedent for effectiveness. Therefore, basic premise was that all parties to these agreements has carried out their respective due diligence and therefore it was believed that the Projects' operational risks had been reasonably mitigated. As such, it was expected that the Fund's borrowers would be able to satisfactorily meet their obligations to lenders, including LTCF.

It is noteworthy that as many as 20 proposals were received by LTCF for funding but only five were financed. The high drop out is due to" (i) the procurement process; (ii) availability of alternative financing due to high margins under the 1994 Policy; (iii) non-availability of fund for a period before effectiveness of

PSEDF-II; (iv) crowding out due to high allocations/standbys for Hubco.

LTCF has participated in the funding of IPP's which vary in terms of size (117-1200 MW), location, fuel (RFO, natural gas, low BTU gas) and type (combined cycle, steam, diesel). The Fund also participated in the 82 Km residual fuel oil pipeline project, which meets the entire fuel requirements of Hub Power Company. Todate LTCF has invested about US$ 840 million in five 5 projects. The total amount of investment mobilized for these projects (including equity and commercial debt) is approximately US$ 3 billion.

Each of the sub-projects are briefly discussed below:

Asia Petroleum Limited (APL):

The 82 Km Pipeline with an annual capacity of 3.63 million tones runs from the Pipri Oil Terminal to Hub, Baluchistan and supplies residual fuel oil (RFO) to Hubco. The Pipeline has been operational since November 02, 1996 and has cumulatively pumped 4,777,287 metric tones of RFO upto March 31, 2000. LTCF provided $ 19.98 million for the Project and the company has been servicing its loans satisfactorily through project revenues.

Hub Power Company Limited (Hubco):

The 1292 MW steam cycle project, based on residual fuel oil (RFO), has been in commercial operation since March 1997. The tariff payable to Hubco by Wapda has been under dispute since mid 1998. Considering LTCF's large exposure to this project (approximately $ 450m) an early resolution of this dispute is imperative for the Fund to maintain a positive cash flow.

Rousch (Pakistan) Power Limited (RPPL):

RPPL, a 412 MW (gross capacity) combined cycle plant located at Abdul Hakim about 70 km. from Multan, is in operation for almost a year now. The plant design, currently based on RFO, allows easy conversion to gas, which would improve overall efficiency and profitability. LTCF has provided debt facility of US$ 180 million to the Project. The initial targeted Commercial Operation Date (COD) was March 1998, however, actual COD was achieved on December 11, 1999.

Southern Electric Power Company Limited (SEPCOL):

SEPCOL is a 117 MW diesel engines plant based on RFO to which LTCF has disbursed US$ 35 million. The Project encountered serious problems during commercial operation testing and also faced the threat of termination, however these issues were resolved and COD was achieved in March 1999.

Uch Power Limited (UPL):

UPL is a 587 MW low BTU gas fired plant located at Dera Murad Jamali, Baluchistan. LTCF financing commitments for the Project total US$ 187.00 million. out of which approximately US$ 7.00 million. remains undisbursed. The Project has achieved COD in October 2000.

Project Contribution in Gas/Coal Sector; the Project succeeded in attracting a huge amount of private capital, albeit concentration in power generation and enhancing institutional capacity for appraising and finalizing project proposals.

During Project implementation the gas and coal sectors appear to received inadequate attention. This would indicate that perhaps the relevant administrative agencies were either initially not consulted in the evolving the objectives and/or there was a lack of sufficient follow-up endeavor during the implementation phase. More involvement of MP&NR which is the controlling ministry for the gas and coal sectors may have the achievement of the objectives for these sectors.

The implications of this are quite significant as a more balanced development of the energy sector may have avoided a situation of over capacity of power, based on imported fuel, while there exists unmet demand for gas. Therefore the objectives should not have been treated as mutually exclusive but inter-related i.e. development of one energy sector should have been linked to simultaneous growth in other sectors.

PED/NDFC Staffing:

Over the years the experience and exposure of operating in international environments have groomed PED' s professional staff to effectively meet the operational requirements of LTCF. The experience gained by PED in financing of energy / infrastructure projects is substantial which now encompasses both appraisal and monitoring phases, PED officers have been exposed to working on these transactions with international lenders, sponsors and developers on "project finance" basis. Acting as administrator of the Fund, PED always remained effective in matching the varied requirements of various parties. PED staff has also gained experience of working with technical and legal consultants of international repute and a number of major international suppliers, contractors and operators. Furthermore, PED has gained valuable experience of working with a number of co-financers, particularly the WB/JEXIM.

The experience gained in PED equips the division to advent into other sectors wherein private sector investment is essentially required. With the existing skills today PED is fully geared to; i) undertake Project Financing on a non-recourse/limited recourse basis; ii) provide financial advisory services; iii) develop financial models for energy/infrastructure projects; iv) arrange funds through syndications as a lead bank; v) act as an Inter-creditor Agent in international transactions; vi) review and evaluate the procurement aspects in-line with the requirements of the WB and other international multi-lateral and bi-lateral agencies; vii) undertake technical due –diligence; viii) effectively negotiate project's agreements with the Project companies as well as other lenders to the Projects; ix) act as Fund Manager.

Although, PED has been able to retain most of its trained staff, however, the current scenario indicates that it may not be the case for long. In case no attempts are made to up hold PED, which over the years has transformed itself into a strong institution, the human resources developed will be lost, leaving a vacuum for future developments in energy/infrastructure sector.

Views of other Stake Holders:

The substantive views and comments received from the other stake holders are summarized below.

Hub Power Company Limited (Hubco):

Hubco while appreciating the far reaching significance of the Project has suggested that there was a need for the establishment of an effective monitoring program by the WB which would have enabled it to play a more proactive role in resolving the problems being faced by the IPPs. It has also opined that despite good initial intentions GOP could not implement key components for the program, particularly those related to the introduction of market reforms in the areas of transmission and distribution of power, which has marred the success of the entire project.

Commenting specifically on the design of the Project, Hubco expressed its reservations on three aspects, viz (i) the requirement to comply with WB procurement guidelines for the WB and Jexim tranches (ii) the tied nature of certain tranches of the PSEDF and (iii) the unavailability of PSEDF financing for payment of soft costs.

With respect to disbursements some teething problems were encountered in the initial stages resulting in agreed deadlines being missed. However one operational problem which persisted was that disbursements were not pre-advised by any of the co-financiers except USAID. This meant that beneficiaries were not able to receive value date credits.

On the question of effectiveness of PSEDF funding in facilitating Financial Close, Hubco has unequivocally acknowledged that without the funding made available through the PSEDF their project would not have been materialized. It has also appreciated the cooperation extended by the various GOP agencies during implementation of the Project.

Rousch (Pakistan) Power Limited (RPPL):

RPPL believes the Project's contractual framework and the concessions were adequate to give reasonable comfort to senior lenders as well as project promoters/sponsors. Commenting on their experience during project's implementation with various GOP entities setup for PSEDF, RPPL feels that during initial years the three institutions developed by GOP (i.e. PED, WPPO/PPC/PPIB) had worked largely per the PSEDF framework and facilitated IPP proposals. This is evident from the fact that the RPPL project was appraised, negotiated, and documented in a professional way, achieved timely Financial Close and committed funds were disbursed per agreed time frame and procedures. This was achieved despite PPC/PPIB not being able to truly offer the 'one window' facility announced in the GOP's policy.

Subsequently, however, as the sub-project approached completion, the company started facing a lot of hindrances. In RPPL's opinion, the government machinery at that time tried to make the implementation of IPPs a politically oriented issue, which also influenced the approach of these three institutions.

Commenting on the appropriateness of opting for LTCF funding RPPL acknowledged that without a subordinated loan, probably the Project have not materialized. PED/NDFC team played a vital role without compromising on the basic principles of credit appraisal and objectives of PSEDP. PED/LTCF was conceived to act as professional and independent organization, but with time it has increasingly been

influenced by disparate considerations and is seen as wearing two hats, which has shaken the confidence of the offshore lenders and sponsors. LTCF being a lender having its own Board of Directors should play an independent role on commercial cum development basis.

On LTCF's financing role in facilitating raising of senior debt, RPPL confirm that availability of LTCF loan helped in giving comfort to senior lenders in making a decision to finance the Project, at reasonable cost and fees in a developing country. Particularly, LTCF's successful funding of Hubco provided confidence to offshore lenders and sponsors.

RPPL suggests that a more constructive strategy for tariff reduction would have been to approach the sponsors and lenders to work with the government to mitigate the impact of the power purchase agreements (PPA) on Wapda's cash flows rather than impending implementation of projects. This would have avoided damaging investors confidence, developed over a period time, and also the Projects would not have faced cost overruns, thereby reducing the cost of generation.

Like Hubco, RPPL has also suggested that the WB should have played a more active role in the PSEDP program. Another weakness pointed out was that the Project did not promote the local engineering industries or consulting firms. RPPL faced problems in hedging interest rate risk and suggested that LTCF rates should be linked to LIBOR instead of US Treasury or IBRD rates. The company has also suggested that greater decision making autonomy should be provided to the three GOP institutions developed for the Project and compensation designed to discourage staff turnover.

Asia Petroleum Limited (APL):

Giving a background of the venture APL writes that their project was established in the private sector to construct a pipeline within a very limited but definite time frame to fulfill the HFO needs of Hubco, therefore, the company was conceived in an unconventional manner. Following actions were initiated by the WB, with the consent of GOP:

- Selection of shareholders who had a vested interest in the running of the company;

- EPC contract was awarded before signing of any agreements especially the IA, which has still not been finalized;

Recounting its experiences, APL has listed the following problems, possible mitigants, and lessons learned;

- As the company was unable to achieve Financial Close and the funds therefore, were not easily available the contractor was always in a position to dictate terms. Healthy contractor-client relationship was very often missing.

- The MP&NR got into tangles as this was the first time they were handling a project of this nature therefore their responses were always very slow and created hurdles for the Project. We feel that the same GOP window should have been operative as in the case of IPP thus eliminating the need of re-inventing the wheel, which was already substantially developed in the Ministry of Water and Power.

- The role of NDFC as an institution was no different to what is normally attributed to the Public Sector entities. However, one redeeming factor has been the attitude of PED section whereby most of the officials demonstrated a very commercial and skillful approach to the whole issue and inspite

of constraints that they must have been faced with, things did move and the Project got completed on time.

- Any project which required substantial investment, Financial Close should not be a pre-requisite.

- PSEDF like fund definitely can serve a very meaningful and rewarding purpose.

- NDFC should act as an independent entity to administer such funds and should not be dependant to perform within the practiced bureaucratic norms.

Tapal Energy (Private) Limited (Non-LTCF Funded IPP):

Tapal considers the Framework for the PSEDP well conceived and designed to encourage power generation projects in the PS. However, adding; there could have been a parallel and equal focus on developing power distribution also in the PS as reform in the power sector cannot be completed until the distribution sector is also privatized and able to control its losses and revenue leakages.

On their experience with various GOP entities setup for PSEDP implementation the company states that while they did not borrow from the PSEDF the general impression from those companies, which did borrow, was that while the various GOP entities created under the Project were well established there appeared an absence of common objectives between them. As an example, the PPIB was concerned with investment promotion and facilitation of IPP projects. In WAPDA the WPPO was more concerned with the cost of electricity under the PPA. WPPO was also rightly concerned, even in 1994 that the quantum of generating capacity being contracted from the PS appeared far in excess of projected demand. It was therefore trying to discourage a few projects. The PED in NDFC appeared more concerned with the viability of its investments and was therefore interested in maximization of revenues of its sub-projects, an objective directly in conflict with that of WPPO. PED was reporting through NDFC to the Ministry of Finance, as opposed to the PPIB and WPPO, which came under the administrative control of the Ministry of Water & Power. The fuel logistics and contracts were being coordinated by the Petroleum Ministry, which had its own priorities. The ministries did not see eye to eye on many issues, resulting in confusion and delays.

On the relative merits of a financial structure with LTCF funding vis-à-vis one without Tapal feels a blend of the LTCF with commercial debt would definitely have been a better package as their current loan is of seven-year maturity, which places a heavy debt servicing burden during the initial years of the PPA.

Based on their experiences with the PSEDP program the Tapal has suggested the following approach:

- To test the framework and policy, the first private generator should have been of much smaller capacity (approximately 200 MW) than Hubco.
- After signing the first 1000 MW under the 1994 policy, the GOP should have switched to a competitive bidding system for subsequent capacity acquisitions, based upon pre-determined project parameters such as size, location, fuel and technology.
- A parallel focus should have been given to the privatization of distribution entities and strengthening of regulatory framework.
- Problems that arose in the implementation of projects should have been dealt on a commercial basis.

Assessment of World Bank Performance:

The WB played a major role in designing the framework and launching of the PSEDP. Subsequently through contacts with the Project participants and regular follow up missions the WB monitored the implementation progress. In addition to its own funding the Bank's participation encouraged other co-financiers to fund the program.

The assessment of the WB by the various Project participants presents a somewhat divergent view. While the GOP agencies have generally been reticent on the subject, Wapda's continued censure of the IPPs, with tacit support of other government agencies, can be seen as an indirect criticism of the PSEDP program and its protagonists. Though it should be recognized that this criticism has not been directed at the concept of private power ***per se***, but rather the perception that the tariff payable by utilities under the program is unaffordable.

On the other hand, some of the IPPs have called for a larger WB role in resolution of their differences with GOP, evidently in the belief that this would be to their advantage. This attitude would appear to lend credence to the perception that the programs primal objectives were promatation of the foreign investors/contractors interests.

Lessons Learnt:

Prior to inviting PS proposals there should have been defined parameters for; i) the legislative environment; ii) what is required from the Project technically and commercially; and iii) what is finance-able in the private sector. Wapda being the power purchaser should have identified the specification of available sites, plant size, fuel type, mode of plant operation, provision of grid inter-connection facilities etc. Identification of these desired parameters would have provided a meaningful competition between the private sector investors.

Before embarking on enlarging the country's power generation pool it may have been appropriate to plug the holes. The problems of high line losses and pilferages were well known and past attempts to address the issue had not met with any notable success. In this scenario, accurate demand figures i.e. the need as well as the capacity to pay, could not be estimated.

Focus on a single large project as a 'first' was a risky proposition when the country had not gained enough negotiating experience. This may have resulted in: (i) the GOP agreeing to multiple risk coverages which only added to the cost of the Project resulting in a burden beyond the country's economic capacity (ii) offering a higher ROI than merited by technological and operating risk consideration and (iii) higher developmental costs which could not be off-set against any tangible benefits for the country.

As events have show, in-depth economic and technical appraisal is required for a project of this magnitude and far reaching implications. Specifically: (i) more detailed work on the Bulk Tariff Policy may have helped in avoiding some of its shortcomings like offering a premium which encouraged relatively smaller diesel engine projects not suited for base load requirements (ii) the impact of the Projects on the country's balance of payment were not fully comprehended (ii) despite the current pressures for lowering trade barriers, considerations of economic linkages and indigenisation should not be totally ignored in such Projects as this adds to their political sustainability and ultimate success.

It has been noted that number of project's participants influenced the timely and successful completion of the transaction. More the number of project participants, (may it be the contact counter-parties, contractors, co-financiers, members of the sponsor group), longer it will take the Project to achieve Financial Close. As such, for a smoother, timely and cost effective transaction, the ideal scenario is to have a limited number of project participants.

Projects which entitled multi-currency funding have experienced not only delays but have also incurred additional costs on account of hedging for the exchange rate movements. The preferred option could be that all project funding should be denominated in a single currency preferably the same currency as that of the TKC/EPC (Turnkey/Engineering Procurement Contractor) or at least into a currency which may be hedged readily.

For the success of the PSEDP Project it was a pre-requisite that a suitable institutional framework is in-place and sufficient administrative resources are mobilized to expedite the necessary project agreements and approvals. Such a set-up should have been available prior to the commencement of first project (Hubco) development work, however, this was not the case. Hubco paved a way for an institutional development and by the time it was completed, a reasonably utilitarian institutional framework was available. The continuity and availability of experts/specialists developed in these institutions was essentially required for effective/smooth implementation of projects. Unfortunately, as this institutional development was in the public sector, therefore, no attempts were made to retain the human resources developed in these institutions. The lack of proper compensation and un-defined future career prospectus, forced significant number of professionals to leave for better career prospects. As such, though an institutional frame was available, it was never fully equipped and geared to effectively respond to the inherent challenges of the transactions.

The PSEDP funding was from various co-financiers and was, therefore, in different currencies. The World Bank commitment and disbursements were in US$, however, as the WB disburses equivalent US$ from the pool of currencies, GOP is required to service the debt in respective currencies from which WB has made disbursements. This has exposed the PSEDP to exchange risk. While structuring the PSEDF-I this aspect was totally ignored, however, in PSEDF-II the exchange risk for US$ movement to Pak Rupee was covered, as under PSEDF-II the Project Company liability is established in US$ with repayments in local currency equivalent amount on the basis of exchange rate prevailing on the date of repayment. The change in the structuring of PSEDF-II demonstrate the learning curve, however, the fund is still exposed to exchange risk of currencies other than US $. In future, it would be essentially required that exchange risk exposure should be assessed in detail and appropriate mitigates are in place.

The overall concentration remained focused on power generation and in the process the ancillary requirements were ignored, which included development and privatization of power distribution system, affordable tariff and overall industrial growth. The implications are that, although, the electricity is available, the distribution system is inadequate to cater the consumption requirements. The transmission losses are being passed on to the consumers in the form of excessive power tariff. The availability of power, which should have triggered the industrial development, did not help, as the power tariff is too high. Power sector was declared an industry and various concessions were allowed, however, not enough incentives were offered in other sectors of the economy to facilitate accelerated industrial development. It is an established fact that development is a mellifluous activity and is therefore, should not be restricted to one sector of the economy. For a real success of PSEDP coordinated efforts were/are required in all sectors of the economy. Optimal consumption of available power, efficient transmission and controlled distribution losses will automatically reduce the tariff payable by Wapda to the IPPs, thus making the power affordable

for the end consumers (industrial/domestic).

The financial structuring engineered for the first PSEDP project burdened the Project with substantive soft costs such as, development costs, legal costs and the lenders reserve requirements, in spite of the fact that various guarantees were available to the lenders. These soft costs were/are a major contributing factor in an inflated tariff agreed for Hubco. Being the first project, some of these costs could be justifiable, especially the legal/development costs, however, the financial structuring was adopted as a model in other IPPs, which should not have been the case. On the basis of watertight security arrangements the lenders could have foregone their reserve requirements, thus allowing a relief on the tariff. Had Wapda and the GOP continued to honor their commitments, the lenders may have agreed to provide such reliefs on future transactions.

For the first PSEDP project GOP had to allow several guarantees through the WB, JEXIM and other Export Credit Agencies to the commercial lenders. All these guarantees were/are; i) back-stopped by the GOP guarantees and are therefore contingent liabilities of GOP; and ii) for the political risk cover. From 1988 to 1996 all the governments were supportive of power policy and therefore, with the passage of time the foreign lenders started to consider financing in Pakistan without guarantees for the political risk cover. It was always the intention of the GOP to minimize guarantee exposure in such "Project Financing" transactions. The consistency in GOP's policies encouraged the foreign lenders, during the period 1994 to 1997, to finance some of the IPPs in Pakistan without seeking political risk guarantees. This was an encouraging sign and could have been en-cashed for future developmental transactions in the private sector, at an affordable price. However, the change in GOP's attitude has once again cautioned the international community not to enter a third world country without securing itself for the political risks.

Annex-1 –A

List of Institutions Approached and
Status of Replies Received

S.No.	Institution Name	Reply / Responded
1.	National Insurance Corporation	No
2.	Oil & Gas Development Corporation	Yes
3.	Pakistan Water and Power Development Authority	Yes
4.	State Bank Of Pakistan	No
6.	The Karachi Electric Supply Corporation	Yes
7.	Private Power and Infrastructure Board	Yes
8.	Asia Petroleum Limited(APL)	Yes
9.	Rousch (Pakistan) Power Company Limited (RPPL)	Yes
10.	Southern Electric Power Company Limited (SEPCOL)	No
11.	The Hub Power Company Limited (Hubco)	Yes
12.	Uch Power Limited (UPL)	No
13.	AES Lal Pir Limited	Yes
14.	AES Pak Gen (pvt) Company	No
15.	Altern Energy Limited	No
16.	Davis Energen Limited	No
17.	Eeshatech (pvt) Limited	No
18.	Fauji Kabirwala Power Company Limited	No
19.	Gul Ahmed Energy Limited	No
20.	Habibullah Coastal Power (pvt) Company	No
21.	Japan Power Generation Limited	No
22.	Kohinoor Energy Limited	No
23.	Liberty Power Limited	Yes
24.	Northern Electric Company Limited	Yes
25.	Power Generation Systems Limited	No
26.	Saba Power Company Limited	No
27.	Sabah Shipyard (Pakistan) Limited	No
28.	Tapal Energy Limited	Yes

Annex-1 -B

Questionnaire Address to the above listed Institutions

1. Adequacy of contractual framework and the concessions/policy to give comfort to senior lenders as well as to the project promoters/sponsors for project implementation and operation.

2. Your company's actual experiences with various GOP entities setup for PSEDP implementation. In your opinion did these entities provide adequate assistance to the IPPs at various stages of approval, implementation and operations? How do you think this assistance could have enhanced for facilitating setting up of IPPs?

3. Appropriateness of your decision to avail LTCF subordinated loan from PED/NDFC for financing part of the capital cost. Was your loan request handled properly at various stages of appraisal, documentation, disbursement, etc,. If there were shortcomings observed, how these could have been avoided?

4. LTCF subordinated loan (together with equity) was expected to facilitate raising of senior debt, and at relatively lower cost and fees. What has been the actual experience with the senior lenders and export credit guarantees as well as other guarantees?

5. Some of the IPPs experienced a number of problems. How do you think these problems could have been avoided? What do you consider would have been the impact on capital cost and generation cost if such problems were resolved early?

6. What do you consider are the lessons learnt from implementation of PSEDP, in particular the implementation of your project?