

ASIAN DEVELOPMENT BANK

PCR: IND 23013

PROJECT COMPLETION REPORT
ON THE
POWER EFFICIENCY (SECTOR) PROJECT
(Loan 1161-IND)

IN
INDIA

August 2001

CURRENCY EQUIVALENTS

Currency Unit – Rupee/s (Re/Rs)

	At Appraisal	At Completion
Re1.00 =	\$0.04	\$0.03
\$1.00 =	Rs25.80	Rs39.8

ABBREVIATIONS

ADB	-	Asian Development Bank
APSEB	-	Andhra Pradesh State Electricity Board
APTRANSCO	-	Andhra Pradesh Transmission Corporation
APGENCO	-	Andhra Pradesh General Corporation
DFI	-	development finance institution
DSCR	-	debt-service coverage ratio
DVC	-	Damodar Valley Corporation
EA	-	executing agency
EIRR	-	economic internal rate of return
ERAF	-	exchange risk administration fund
FIRR	-	financial internal rate of return
GRIDCO	-	Grid Corporation of Orissa
KEB	-	Karnataka Electricity Board
LCB	-	local competitive bidding
kV	-	kilovolt
kWh	-	kilowatt-hour
MSEB	-	Maharashtra State Electricity Board
MVAR	-	megavolt-ampere reactive power
MW	-	megawatt
OFAP	-	operational and financial action plan
OHPC	-	Orissa Hydroelectric Power Corporation
OPS	-	operational policy statement
OSEB	-	Orissa State Electricity Board
OTPC	-	Orissa Thermal Power Corporation
PFC	-	Power Finance Corporation
Re-OFAP	-	reform-oriented operational and financial action plan
RBI	-	Reserve Bank of India
SEB	-	state electricity board
SERC	-	state electricity regulatory commission
SGC	-	state government companies
TA	-	technical assistance
TNEB	-	Tamil Nadu Electricity Board
USAID	-	United States Agency for International Development

NOTES

- (i) The fiscal year of the Government and of the Power Finance Corporation ends on 31 March. FY before a calendar year denotes the year in which the fiscal year ends, e.g. FY2000 ends on 31 March 2000.
- (ii) In this report “\$” refers to US dollars

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BASIC DATA**A. Loan Identification**

1.	Country	India
2.	Loan Number	1161-IND
3.	Loan Title	Power Efficiency (Sector) Project
4.	Borrower	India
5.	Name of Development Finance Institution	Power Finance Corporation Limited (PFC)
6.	Amount of Loan	\$250.00 million
7.	Project Completion Report Number	PCR :IND 644

B. Loan Data

1.	Appraisal	
	- Date Started	9 Apr 1991
	- Date Completed	26 Apr 1991
2.	Loan Negotiations	
	- Date Started	13 Nov 1991
	- Date Completed	16 Nov 1991
3.	Date of Board Approval	26 Mar 1992
4.	Date of Loan Agreement	23 Apr 1992
5.	Date of Loan Effectiveness	
	- In Loan Agreement	22 Jul 1992
	- Actual	22 Jul 1992
	- Number of Extensions	nil
6.	Terminal Date for Commitments	
	- In Loan Agreement	31 Dec 1996
	- Actual	3 Oct 1997
	- Number of Extensions	1
7.	Closing Date	
	- In Loan Agreement	31 Dec 1996
	- Revised	30 Jun 1998
	- Number of Extensions	1
8.	Terms to the Borrower	
	- Interest Rate	Six months variable OCR ^a rate
	- Maturity (number of years)	25 years
	- Grace period (number of years)	5 years
9.	Terms of Relending (Government to PFC)	13-14 percent
10.	Interest Rate for Subloans	
	- Original	15-16.5 percent
	- Revised	15-16.5 percent

^a OCR = ordinary capital resources.

11. Disbursements

a. Dates

<u>Initial Disbursement</u>	<u>Final Disbursement</u>	<u>Time Interval</u>
06 Sep 1994	18 Dec 1998	4 years, 4 months

<u>Effective Date</u>	<u>Original Closing Date</u>	<u>Time Interval</u>
22 Jul 1992	31 Dec 1996	4 years, 5 months

b. Amount (\$ million)

Category	Original Allocation	Last Revised Allocation	Net Amount Disbursed	Undisbursed Balance
1. Project Expenditures	250.00	189.42 ^a	189.42	0.00
2. Imprest Account	0.00	0.00	0.00	0.00
Total	250.00	189.42	189.42	0.00

C. Implementation Data

1. Number of Subloans 123

2. Sectoral Distribution of Subloans

Subloan Sector	Actual
Transmission	54
Distribution	57
Capacitors	7
Renovation and modernization of power plants	5
Total	123

3. Size of Subloans (actual) (in Rs million)

Range	Number of Subloans	Aggregate Amount
Up to Rs100 million	58	3,406.20
Rs100 million-Rs200 million	26	4,058.00
Rs200 million-Rs300 million	23	5,626.94
Over Rs300 million	16	7,635.96
Total	123	20,127.10

^a First cancellation of \$40.00 million was effected on 30 March 1998 and second cancellation for \$20.58 million on 18 December 1998. The loan amount was reduced to \$189.42 million (net of cancellation).

4. Other Breakdown of Subloans

State Electricity Board	Transmission	Distribution	Capacitors	Renovation & Modernization	Total
Karnataka	25	22	1	0	48
Maharashtra	13	12	0	5	30
Orissa	8	15	2	0	25
Tamil Nadu	8	8	3	0	19
Andhra Pradesh	0	0	1	0	1
Total	54	57	7	5	123

5. Subloans Above Free Limit: \$10 million (The first subproject of each subborrower required ADB's prior review and approval.)

D. Data on ADB Missions

Mission	Date	Persons (no.)	Person-Days (no.)	Specialization of Members ^a
Fact-Finding	24 Feb–8 Mar 1989	3	28	a,d
Consultation	10–21 Apr 1989	2	24	a,d
Cofinancing	18–29 Sep 1989	5	60	a,b,c,f,g
Consultation	9–15 Feb 1990	2	9	a,d
Special Loan Administration 1	7–15 Mar 1990	2	18	a,b
Preappraisal	12–22 Feb 1991	2	22	a,b
Appraisal	8–24 Apr 1991	7	119	a,b,c,d,e,g
Review 1	24 Sep–3 Oct 1991	3	10	a,d
Review 2	4–19 Feb 1992	3	29	a,b,d
Review 3	14–21 May 1992	3	21	a,b,d
Review 4	19–29 Jan 1993	1	11	a
Review 5	13–21 Jul 1994	1	9	a
Review 6	6–17 Feb 1995	4	48	a,b
Midterm review 7	16–22 Nov 1995	1	7	a
Review 8	15–20 Jul 1996 & 14–19 Aug 1996	2	15	a
Review 9	19–23 May 1997	2	10	a
Review 10	9–18 Oct 1997	2	20	a
Review 11	16–21 Feb 1998	2	12	a
Review 12	3–7 Aug 1998	2	10	a
Project Completion Review Mission ^b	13–17 Nov 2000	2	10	a, h

^a a = engineer, b = financial analyst, c = counsel, d = economist, e = procurement/consultant specialist, f = control officer, g = programs officer, h = loan administration staff.

^b This report was prepared by the ADB PCR Mission comprising of A.S. Guha, Mission Leader; and R. Kapoor, Assistant Project Analyst.

I. BACKGROUND

A. History

1. The Government established the Power Finance Corporation (PFC) as an independent public sector company in July 1986 and incorporated it under the Companies Act of 1956. PFC began its operations in early 1988. Its main objectives are to finance, facilitate, and promote power sector development in India, including private sector power projects. PFC had an initial authorized capital of Rs10 billion, which was marginally increased to Rs10.3 billion by March 2000. PFC finances all types of power projects, except rural electrification. It distributed its first loan in January 1988. In addition to lending, PFC also provides technical assistance and advisory services to its clients. In 1988, PFC was recognized as a financial institution under the Income Tax Act and as a public financial institution in 1990 under the Companies Act. Further, in 1997, PFC was registered as a nonbanking finance company as per the Reserve Bank of India's (RBI's) guidelines. PFC has been rated Ba2¹ by Moody's Investor Services, BB² by Standard and Poors (both limited by the sovereign rating of India), and AAA³ by two domestic credit rating agencies.

B. Scope of Operations

2. PFC's operational framework is consistent with the central Government's policies and regulatory mechanism under which PFC is allowed to set its own lending priorities, keeping in view its developmental role in the power sector. PFC mobilizes resources in the form of borrowings and equity participation from internal and external sources, maintaining debt-equity and debt-service coverage ratios according to its approved business plans. PFC's interface in the power sector covers the Ministries of Power, Finance, and Programme Implementation, Central Electricity Authority, Planning Commission, state governments, state power utilities, public sector undertakings, private power utilities, and power sector research and training institutes. In the financial sector, its interface includes coordination with the RBI, state-owned banks, commercial banks, financial institutions, finance service companies, multilateral and bilateral financial institutions, international financial institutions and commercial banks, and international and national rating agencies.

3. PFC provides financial and nonfinancial assistance for all types of projects in the power and associated sectors. PFC funds for a state-owned enterprise depends on the merit of the individual project and are in addition to other funds available to the state governments from the central Government. The various instruments of PFC's operations are in Appendix 1. PFC's appraisal system emphasizes the financial and operational strengths, capability, and competence of the borrower; and techno-economic viability of the project. Consistent with its developmental role, PFC also provides financial assistance to some ineligible public sector utilities provided they commit themselves, under an agreed upon plan supported by the Government concerned, to improve its performance level. PFC's interest rates are structured so that they are competitive and depend on the cost of raising the resources and the state of the financial market. In certain cases, interest rates are adjusted to encourage reforms or for specific types of projects in support of Government policies, for which subsidies, if any, are received from the Government.

¹ Credit rating of Ba2 by Moody Investor Services indicates positive (sovereign) rating.

² Credit rating of BB by Standard and Poors indicates stable rating.

³ AAA rating by domestic credit rating agencies indicates the highest safety rating.

C. Relationship with ADB and Other Lenders

4. In March 1992, the Asian Development Bank (ADB) approved a \$250 million equivalent loan to India from the ordinary capital resources at ADB's pool-based variable lending rate. The loan had a repayment period of 25 years with a 5-year grace period. The central Government re-lent the proceeds of the loan to PFC at a relending rate of 13-14 percent in accordance with its standard lending terms for financial institutions in the public sector. The original loan closing date of 31 December 1996 was subsequently extended to 30 June 1998 to facilitate completion of the subprojects financed under the loan. Savings of \$60.58 million were cancelled in two stages: \$40 million on 30 March 1998 and \$20.58 million on 18 December 1998. The net loan amount after cancellation was \$189.42 million. PFC lent the loan proceeds to five eligible sub-borrowers who had signed operational and financial action plans (OFAP) acceptable to PFC and ADB. The subborrowers were Maharashtra State Electricity Board, Karnataka Electricity Board, Tamil Nadu Electricity Board, Andhra Pradesh State Electricity Board and Orissa State Electricity Board, which became Grid Corporation of Orissa after reorganization of the Orissa power sector in 1996. The loan proceeds were made available to the five SEBs for projects to reinforce and upgrade transmission and distribution, and technical and environmental renovation and modernization of power stations. In all, 124 subprojects were approved under the loan, but one was withdrawn by GRIDCO. The 123 subprojects are listed in Appendix 2.

5. PFC has also received foreign currency loans from the World Bank; Credit National, France; Credit Lyonnais, France; and Kreditanstalt fur Wiederaufbau (KfW), and euro notes, syndicated loans from banks, and floating rate notes. The domestic lenders are various banks in India that provided term loans. The other sources of borrowings were taxable and tax-free unsecured redeemable bonds. Details of all borrowings are in Appendix 3.

6. PFC set up an Exchange Risk Administration Fund (ERAF) in May 1994 to build a sound portfolio of assets to meet the incremental liability due to exchange rate variation and also to meet the debt service obligation of PFC. The setting up of the fund made PFC eligible to certain income tax concessions under the Income Tax Act (1961): any income of the ERAF is exempt from tax liabilities and any contribution to the ERAF is allowed as a tax deduction. The ERAF was set up as a trust, and the trustees include a chairman and director (finance), who are the ex-officio members, and two senior officers of PFC who are nominated. The trustees have the authority to invest the corpus in specified instruments and the funds can only be used for reimbursing of exchange loss and the cost of arranging forward cover and swaps. PFC cannot use ERAF resources for its own operations. The two schemes in operation are the Loan Specific Fund (LSF) and the Common Pool Fund (CPF). Under the LSF, a separate fund is maintained for each loan for which a specified rate of exchange risk premium contribution is applicable. For the CPF, a common rate is applicable for a pool of loans covered by the scheme. The contribution rates are based on the (i) rate of currency depreciation, (ii) expected yield on investments, (iii) balance available, and (iv) interest rate of the loan to be covered.

7. The trustees and the ERAF committee determine the investment policy of the ERAF. Currently investments are made in fixed deposits, certificates of deposits, empanelled banks, financial institutions, nonbanking housing finance companies, and AAA-rated debt papers of central Government-owned enterprises. As of 31 March 2000, the corpus of the ERAF was Rs4.9 billion (\$108.22 million) while the exchange loss arising on transactions of foreign currency loans was Rs3.9 billion (\$87.33 million). This confirms the liquidity of the ERAF to meet PFC's present obligations. The corpus was increased to Rs5.3 billion (\$117.78 million) as of 31 March 2001. A review of the ERAF operation indicates effective performance since its

inception. The fund has maintained the exchange risk premium contribution rates at competitive rates below the forward cover premium rates. Moreover, the ERAF mechanism has allowed better cash flow management by building up a pool of resources to meet foreign exchange losses on debt service of foreign currency loans. PFC's risk is covered to the extent of funds available in the ERAF. With the increase in PFC's risk exposure with new loans, it has also ventured into the derivatives market to hedge against foreign exchange rates and interest rate risks. The instruments generally used for hedging are currency and principal swaps. The hedging strategy is based on the assessment of the risk exposure of PFC on account of foreign currency borrowings and the cost-benefit analysis of the hedging product. To date, PFC has hedged \$65 million out of its external commercial borrowings, which is considered reasonable to provide for possible additional funds that may be required for meeting currency fluctuations in connection with its current foreign exchange loan exposure of about \$500 million.

D. Rationale for the ADB Loan

8. The introduction of PFC into the power sector's institutional mix of state and central organizations represented a new approach to solving the difficult issues of the sector. With its expected substantial financial resources and its particular corporate policies vis-a-vis lending to SEBs, PFC was in a unique position to influence important sector reforms on a nationwide basis. Past ADB assistance given directly to SEBs was able to address only the problems of the particular SEBs and the states in which they were located. By assisting power sector development through PFC at the central level, ADB's program was expected to achieve a much wider coverage. PFC promised to be effective in this regard as (i) its assistance involved developmental conditions unlike in past assistance to the state power sector; and (ii) PFC would be dealing with all SEBs on a closer, more frequent basis by helping them prepare OFAPs and then monitoring their implementation in line with PFC's day-to-day lending activities. The ADB loan was designed to assist sub-borrowers who are direct recipients of ADB's financial resources through PFC and to also benefit other SEBs and power utilities. This was possible because the power utilities' relationship with PFC would be guided by PFC's corporate approach to the SEB's financial and operational viability.

II. IMPLEMENTATION

A. Lending Policies

9. PFC's lending policies are spelled out in its Operational Policy Statement of November 1990.⁴ At that time, PFC felt that though its mandate was to extend assistance to the entire power sector, it would focus its support on the state sector projects, as the states owned a major component of the power sector. Accordingly, PFC's initial assistance was to the SEBs and state government companies (SGCs). Realizing the need for substantial improvement in the SEB/SGCs institutional development, PFC manifested that it would provide loans only to those SEB/SGCs that agree to sign an OFAP. The OFAPs varied from state to state, but essentially addressed the need for both technical and financial improvements. PFC's lending also required the state government to provide a guarantee for repayment as well as commitments to payment of subsidies and implementing regular tariff increases.

10. To be eligible for PFC funding a project must: (i) be economically justified with a rate of return of not less than 12 percent, (ii) be technically sound, (iii) be compatible with existing least

⁴ Report and Recommendation of the President to the Board of Directors on a proposed loan to India for the Power Efficiency (Sector) Project, Appendix 5.

cost expansion plans, (iv) meet the national and state environmental regulations, and (v) have all the necessary clearances/approvals from the relevant statutory authorities. Initially PFC focused on supporting projects associated with (i) renovating and modernizing thermal and hydroelectric power plants, (ii) power systems improvement, (iii) development of transmission and distribution power systems, and (iv) assistance for completing ongoing power plants. PFC's maximum exposure limits are set according to both its clients' creditworthiness and the guarantees offered, such as escrow account in addition to state guarantees. PFC financing to a single entity is limited to 25 percent of PFC's net worth for state- and central Government-owned companies. For private companies, PFC restricts its financing to 15 percent of its (PFC's) net worth to a single industrial unit and 25 percent to a single group of companies.

11. In 1995, PFC reviewed its operations in the emerging power development scenario with the help of an advisory committee of eminent experts in the power and financial sectors. With the emergence of private participation in the power sector, the need also arose for comprehensive structural reforms of the state power utilities. Having gained substantial experience in OFAP administration, PFC initiated dialogues with its borrowers to prepare reform-oriented OFAPs called Re-OFAPs. In preparing of the Re-OFAPs, PFC emphasized institutional strengthening, and reform and restructuring of the state power sector. To help achieve the targets, PFC provides a comprehensive financial package, which substantially meets the investment requirements of the state.

12. PFC provided only term loans initially but subsequently revised its policy to include additional financial instruments such as (i) bridge loans; (ii) lease finance; (iii) supplier's credit; (iv) assistance for studies; (v) bill discounting and rediscounting; (vi) bonds, debentures, equity, and preference shares; (vii) working capital loans; and (viii) guarantee schemes. Further, PFC enhanced its client base to include (i) municipal-run power utilities; (ii) central sector power utilities; and (iii) joint, private and cooperative sector operations. The priority areas for funding were expanded to include (i) studies, consultancy, and training; (ii) research and development; (iii) capacitors, energy meters, computerization, communication and load dispatch; (iv) environmental upgrading; (v) renovation and modernization of generation plants and transmission systems; (vi) urban distribution systems; (vii) transmission systems; (viii) micro, mini, and small hydroelectric generation plants; (ix) captive and cogeneration energy sources; (x) projects related to nonconventional energy sources; (xi) medium and large hydroelectric power generation plants; and (xii) thermal generation. In selecting projects, priority is given to projects having short gestation periods and ongoing generation projects, partially completed transmission systems, and power system improvement.

13. Formation of the state electricity regulatory commission (SERC) is a key component of power sector reform in the states, as it takes away the tariff-setting mechanism from the state government. In 1999, PFC, to encourage the states to set up their respective SERCs, allowed a discount of 1 percent on all outstanding loans. The central Government subsidized the discount and encouraged a number of states to form their SERCs before the deadline of 31 March 1999. As of 31 March 2001, 15 states had formed the SERCs and 5 states were selecting the members of the SERCs.

14. In 1998, the central Government initiated the accelerated generation and supply program (AGSP) to accelerate completion of the ongoing generation projects and to increase power supply from existing power plants in the state sector. PFC is the implementing agency of the program and the eligible projects were (i) renovation and modernization of power plants, (ii) life extension and refurbishment of power plants, (iii) ongoing generation projects, (iv) incomplete transmission lines, (v) installation of capacitors and meters, and (vi) grants for

studies. Under this scheme, the Government provided PFC with an interest subsidy based on the disbursements made by PFC to eligible projects. The subsidy is based on the net present value of the interest subsidies covering the repayment period of the loan. The AGSP has supported the implementation of 5,840 megawatts (MW) of new generating power plants, of which 2,922 MW had been commissioned before 31 March 2000. Other achievements under the program include generation capacity for an additional of 271 MW through renovation, modernization, life extension and refurbishment, resulting in generation of an additional 2.3 billion units per year. Capacitors amounting to 3,108 megavolt-ampere reactive power (MVAR) and 1,278 circuit kilometers of transmission lines have been installed. Transformation capacity has been increased by 2,534 megavolt-amperes (MVA). A total of Rs69.7 billion (\$1.6 billion) was approved under the program, of which Rs51.8 billion (\$1.2 billion) had been disbursed by 18 December 1998.

B. Characteristics of Subloans

15. At appraisal, it was agreed that, as an incentive for satisfactory levels of financial performance, most of the loans should be onlent to a limited number of SEBs that are well managed. A minimum of 70 percent of the total loan amount of \$250 million was tentatively allocated to four selected core SEBs or power corporations. An onlending limit of one third of the total ADB loan to any single subborrower was to be applied. Subborrowers that will be selected should have (i) achieved a rate of return of at least 3 percent in 1992; (ii) achieved a debt-service coverage ratio (DSCR) of at least 1.2 in 1992; and (iii) prepared a satisfactory OFAP approved by the SEB, state government, PFC, and ADB. The remaining 30 percent of the loan was to be allocated for high-priority projects of other SEBs, for which the criteria were slightly less stringent, e.g., the DSCR requirement was reduced to 1 percent.

16. Initially, three core SEBs were selected for support under the ADB loan. These were Orissa State Electricity Board (now Grid Corporation of Orissa Ltd. [GRIDCO]), Karnataka Electricity Board (KEB), and Maharashtra State Electricity Board (MSEB). Later, Damodar Valley Corporation (DVC) was also selected, but as it could not meet the lending criteria, Tamil Nadu Electricity Board (TNEB) became the fourth core SEB. One subproject for the installation of capacitors was later included under the loan for Andhra Pradesh State Electricity Board (APSEB).

17. At appraisal in February 1992, it was proposed that the loan proceeds be utilized only for reinforcing and upgrading transmission and distribution systems, and technical and environmental renovation and modernization of power stations.

C. Implementation and Internal Operation of Subprojects

18. The main events in project implementation are given in Appendix 4. The \$250 million ADB loan was to be lent to four core and other eligible subborrowers (para. 4). All subproject appraisals were to be completed and ADB approval obtained within two years of loan effectiveness, i.e., by 22 June 1994. Subproject approvals during the first two years of project implementation were very slow. By June 1994, the 75 subprojects approved involved ADB financing of only \$120 million. The reasons for the delay follows (i) the nonfamiliarity of PFC and SEB staff with ADB procedures resulted in prolonged communication and correspondence; (ii) one of the original four core subborrowers did not qualify for the ADB loan, and was replaced by TNEB in September 1993; and (iii) the scope of subprojects eligible under the loan was expanded to include a few 400 kilovolt (kV) transmission and metering subprojects in December

1993, when it became evident that it would be difficult for the four core SEBs to utilize all the loan funds within the original scope (para. 17).

19. In August 1994, ADB agreed to a six-month extension till 22 January 1995 to enable PFC to complete subproject preparation and approvals, provided PFC satisfied certain conditions necessary to improve its management performance. The conditions included implementation of the consultant's recommendations for management reforms in PFC and the appointment of the director of finance, a position that had been vacant since January 1993. PFC proceeded with implementing the management reforms, but delayed the appointment of the new director of finance. By the end of December 1994, PFC had completed preparing 104 satisfactory subprojects for a total loan of \$215 million, and by 22 January 1995, PFC submitted the last 8 subprojects for approval. However, approval of the subprojects was held in abeyance till 21 June 1995 when the new director of finance was finally appointed. With the approval of the 112 subprojects, the total loan of \$250 million was committed. The final loan allocation was 44 percent for transmission, 46 percent for distribution, 6 percent for capacitors, and 4 percent for renovation and modernization of thermal power plants. In August 1996, loan savings of \$30 million, due to the devaluation of the rupee, were identified and ADB agreed to finance 11 more subprojects under the loan.

20. The 123 subprojects involved 368 procurement packages: 64 to be procured under international competitive bidding procedures and the remaining 304 under local competitive bidding (LCB). PFC submitted the first set of draft bidding documents in January 1992. After a long drawn-out process and detailed review of the commercial terms, technical specifications, and qualifying requirements, a comprehensive bidding document was finalized in August 1994.

21. In addition to the initial delays in preparing subproject proposals and bidding documents, the unfamiliarity of PFC and SEB staff with ADB's *Guidelines for Procurement* further delayed the procurement process. The time required by SEBs for evaluation and approval of contract awards varied, but in most cases was excessive. In the case of TNEB, the procurement period took 8-12 months as all packages costing above Rs10 million (\$320,000 in 1995) had to be approved by the chief minister of Tamil Nadu State. This requirement was revoked in 1996. The first contract under the loan was awarded in the first quarter of 1995, and awarding continued till June 1998 when the last signed contract was submitted. For contracts awarded under the LCB, PFC submitted a list of such contracts on a monthly basis. Disbursements under the loan were also delayed. Projected and actual disbursements are compared in Appendix 5. The initial disbursement was an advance of \$2.1 million to the imprest account in September 1994. By the end of 1995, disbursements had increased to \$20 million. In 1996 and 1997, considerable physical progress was achieved, resulting in high disbursements of \$59.8 million and \$99.95 million, respectively. Finally, on 18 December 1998, when the loan account was closed, total disbursements under the loan were \$189.42 million. An analysis of project implementation indicates that the two-year overall delay was mainly due to delays in preparing the subprojects and bidding documents in the initial stages. The original and the actual implementation schedule are compared in Appendix 6.

22. One of the key elements in the reform process initiated by PFC was the preparation and implementation of OFAPs by its borrowers. The OFAPs were to introduce the concept of strategic planning in developing the power sector. The process of preparing the OFAPs is laid down in PFC's OFAP manual. The state power utilities in conjunction with the state government prepared the OFAPs under the overall guidance of PFC, which is also responsible for monitoring the implementation of the OFAPs.

23. The OFAP starts with a diagnostic evaluation of the current business situation, based on which the core and noncore focus areas are identified and prioritized. Long-term goals and objectives are developed for each focus area with intermediate targets identified for implementation in a time-bound manner. The state government plays a key role in preparing the OFAPs due to its influence in the management of the state power utilities as well as its responsibilities in transferring adequate funds and resources for power sector development. The identified focus areas are (i) organization structure, (ii) decision-making process, (iii) financial structure, (iv) adequacy of controls in the management system, (v) resource utilization, (vi) demand and supply planning, and (vii) staffing requirements. Non-compliance with the OFAP can lead to suspended disbursements, cancelled loans, or increased interest rates. However, PFC prefers to review the OFAPs to evaluate whether certain targets were too optimistic and to agree on remedial plans with the borrowers. The status of implementation of current OFAPs is also reviewed when further financial assistance to the borrower is considered.

24. PFC regularly monitored the implementation of the OFAPs through progress reports as well as during review missions. Though implementation of the OFAPs has not been fully satisfactory, it is felt that the OFAP mechanism served to increase awareness of the problems faced by the state power utilities. Also, within the existing framework, the state utilities achieved reasonable operational improvement and financial discipline. Though tariffs were increased periodically, the increases did not cover full costs incurred by the SEBs. The state governments released subsidies annually to a level just sufficient for the SEBs to achieve the covenanted minimum rate of return and did not fully compensate them for supply of free or subsidized power to some of its consumers. An overview of the results achieved by the five SEBs are in the following paras.

1. Maharashtra State Electricity Board

25. The government of Maharashtra State reimbursed MSEB the cash subsidy required to achieve a rate of return of 4.5 percent till 1997. Tariffs were revised regularly, the last revision being in September 1998. The SERC, established in August 1999, issued its first tariff order on 28 April 2000, increasing MSEB's average tariff by 6.5 percent. The state government converted loans amounting to Rs14.8 billion (\$328 million) to equity, thereby rationalizing MSEB's capital structure. Outstanding receivables were reduced marginally, from 91 days sales in 1994 to 82 days in 1998. MSEB computerized its billing for high- and low-tension consumers. Old meters are being replaced, in stages, with modern static meters, with about 2,000 meters being installed for the high-tension connections every year. PFC also provided a Rs460 million (\$10 million) loan to MSEB for developing and implementing integrated software solutions. In July 1999, MSEB requested PFC for technical and financial assistance in its reform and restructuring process. To date, PFC has not made the final decision on the request.

2. Karnataka Electricity Board

26. The government of Karnataka State has reimbursed KEB the cash subsidy required to achieve a rate of return of 3 percent till 1998. KEB has been increasing its tariff regularly. The average tariff was increased from Rs1.05 per kilowatt-hour (kWh) in 1995 to Rs1.92 per kWh in 1999. Tariff for irrigation pump sets remained at a low of Rs0.25 per kWh in 1999. In FY1998/99, the state government converted loans worth Rs4.4 billion (\$97 million) to equity to partly rationalize KEB's capital structure. A study for computerizing of billing for electricity supply was conducted. PFC provided a loan of about Rs432 million (\$9.4 million) to KEB for software development and computerization. The Karnataka Electricity Reform Act became effective on 1 June 1999. As of 1 August 1999, KEB was divided into two companies:

Karnataka Power Transmission Corporation Ltd. and Visvesvarya Vidyut Nigam Ltd. To advance the reform process, the state government has sought technical and financial assistance from PFC. A revised OFAP is being considered with the state government. The SERC started functioning on 15 November 1999.

3. Tamil Nadu Electricity Board

27. The government of Tamil Nadu State has regularly reimbursed TNEB the cash subsidy to achieve a rate of return of more than 3 percent. Generally tariff base increased every two years. The average tariff increase per unit of energy was from Rs1.26 to Rs1.92. However, the supply of electricity to agricultural consumers continues to be free of charge. Thus, TNEB's cash generation is such that it cannot invest in any capacity addition program. With implementation of a management information system and efficiency in collection of dues, receivables were limited to a satisfactory level of 39 days sale of power. In accordance with OFAP conditions, computerization of billing for low-tension consumers was initiated in some revenue centers. Financial accounting has been computerized throughout the state. Trivector meters were installed for all high-tension consumers, thus improving billing and collection performance. The government has converted into equity earlier loans to TNEB worth Rs10.5 billion (\$232 million), thus rationalizing the capital structure of TNEB. The SERC was formed on 17 March 1999, but it is not fully functional as the nominated chairman did not accept the state government's nomination.

4. Andhra Pradesh State Electricity Board

28. Up to 1997, the government of Andhra Pradesh State had adjusted the subsidy due to APSEB by writing off loans provided in the earlier years. This enabled APSEB to achieve a rate of return of 3 percent. The government has embarked on a radical reform program. Under the Andhra Pradesh Electricity Reform Act 1998, made effective in February 1999, two companies- Andhra Pradesh Transmission Corporation (APTRANSCO) and Andhra Pradesh Power Generation Corporation (APGENCO) were formed under the Companies Act, 1956. Canadian International Development Agency (CIDA), Department for International Development (DFID) of the United Kingdom, and the World Bank have provided extensive support to the reform program. In the near future, APTRANSCO will be further reorganized with the distribution component divided into a number of smaller companies to be owned by APTRANSCO. The private sector will be invited to take over the new distribution companies by either full private ownership or joint venture. The SERC became operational in April 1999 and has assumed the tariff-fixing responsibility. A steering committee of the state government is supervising the reform process.

5. Grid Corporation of Orissa

29. The OSEB was reorganized in 1996, making it the first SEB in India to be restructured. Initially, three companies were formed under the Companies Act 1956: Grid Corporation of Orissa (GRIDCO), Orissa Hydroelectric Power Corporation (OHPC), and Orissa Thermal Power Corporation (OTPC). Subsequently, 51 percent ownership of OTPC was sold to a private partner following open bidding. The distribution sector had been subdivided into three components and privatized. The SERC was set up in 1995. The current OFAP is with GRIDCO, which has signed an interim power purchase agreement with OHPC to ensure commercial arrangements for contracting power supply. GRIDCO is submitting tariff revision proposals to the SERC every year. Substantial work has been done in repairing and installing static energy meters. A computerized billing system was installed to allow timely issue of bills,

accounting, and information retrieval. A management information system for revenue, operation, and finance functions was developed. It is operational and is implemented for other areas.

D. Operational Performance of PFC

1. Organization, Management, and Staffing

30. PFC is managed by a board of directors comprising the chairman and managing director, and three full-time directors for finance and financial operations, projects, and institutional development and administration. Two directors representing the Ministry of Power in the central Government are also deputized as directors. The finance director oversees resource mobilization, both international and domestic, financial and legal operations, loan disbursements and recoveries, consulting services, and several accounts of the company. The director of projects is responsible for project appraisal, supervision, monitoring, and technical services. The projects group is divided into regional groups and state groups with a separate coordinator for each state, and provides engineers services and technical system development. The director of institutional development and administration assists PFC borrowers in preparing and implementing OFAPs, state-level reforms, and reorganization of the power sector. This group is also divided on a regional basis with individual state coordinators responsible for assisting in the states' overall institutional development. This subdivision and formation of an independent responsibility center for each state under the projects and institutional development divisions of PFC address the need for providing comprehensive assistance to states. Such delegation has enhanced PFC's role and commitment as well as coordination with the states. PFC's organization structure is shown in Appendix 7.

2. Personnel Administration

31. PFC has a well-defined personnel policy ensuring that the best available talent is recruited. Lately, PFC obtained satisfactory results from recruiting management graduates from reputed business schools in India through campus recruitments. PFC has a growth-oriented promotion policy and subject to high standards of performance; from entry level, a professional can climb up the hierarchy to the director-level positions. Salaries and benefits are competitive with those in other government-owned entities although below industry standards in the private sector. As of 31 March 2001, PFC had 159 qualified professionals with expertise in financial management, technical and project appraisal, personnel management, institutional development, and power sector reforms. To improve performance the levels of staff, PFC organizes training programs focused on personal growth and development. Training is conducted within the organization as well as outsourced from reputed organizations. Staff are encouraged to join study courses to advance their knowledge and qualifications.

32. Operating a professionally qualified organization in the power sector in isolation will not be effective. PFC has accordingly actively pursued the development and improvement of technical and managerial skills of the staff of its main clients, -the SEBs. Using its grant funds, PFC organizes seminars, conferences, workshops, and training programs for staff of SEBs and SERCs. One such comprehensive program was the Energy Management Consultation and Training (EMCAT) program funded by a \$16 million grant from the United States Agency for International Development (USAID) between 1993 and 1999. PFC's own contribution to the EMCAT was about \$9 million. This project was associated with two loans provided by ADB and World Bank and was an integral part of the three organizations' overall assistance to PFC.

33. The EMCAT initially focused on two major components -supply and demand of power. Annual action plans were prepared after consultation with SEBs and SGCs, USAID and the international consultants recruited by USAID. The subjects covered included general management, technical and systems improvement, and commercial and finance management. Thirty-seven training programs were conducted in India and abroad, attended by about 1,100 professionals from PFC and the SEBs. The consultants also conducted studies on institutional development and reviewed PFC's organization, preparation of the OFAP manual, compensation packages, and project financing including PFC's possible support to the private sector (Appendix 8).

3. Lending Operations

34. Borrowers take the initiative in requesting financing. When a request is received, PFC appraises the project and the entity. Appraisal involves a thorough review of the technical aspects of the project, its economic justification and evaluation of the finances and operations of the implementing agency. The regional as well as state organization of PFC's projects and institutional development groups (para. 30) allows expeditious appraisal and greater familiarity with each client. The outcome of analysis requires the potential borrower to prepare an OFAP, with PFC support, which provides the basis for the loan conditions if PFC decides to finance the project. The OFAP or the Re-OFAP is reviewed periodically and conditions adjusted during future operations. PFC fixes differential lending rates. The exposure limits and credit evaluation of the borrowers are determined on the basis of an elaborate exercise that considers the DSCRs, guarantees, operational efficiency of the prospective borrower, status of reforms in the borrower's state, and rate of return achieved. After satisfactory resolution of all issues and submission of all approved documentation, loan approvals are generally processed in 6-8 weeks. However, extensive consultation on OFAPs/Re-OFAPs, submission of state government guarantees, and opening of escrow accounts are highly time-consuming and may take 12-24 months, depending on the states' ability to make the required commitments. Financial assistance is normally given to projects that are techno-economically sound with financial or economic returns, as applicable, of not less than 12 percent. However, with the very low subsidized tariffs of the SEBs, the financial internal rates of return (FIRRs) are found to be very low or even negative, whereas the economic internal rates of return (EIRRs) are very high. For projects related to environmental upgrading, installing meters, load dispatch, computerization and communication, research and development and nonconventional energy projects, the required minimum 12 percent FIRR or EIRR is not insisted upon.

35. PFC reviews the existing procurement procedures of the borrowers, which are generally found to be acceptable. However, if PFC obtains the funds for the project from a multilateral or bilateral funding agency, the procurement guidelines of the lending agency are followed. PFC's institutional development group supervises the implementation of activities and conditions agreed upon under the OFAP or Re-OFAP. The projects group supervises the physical implementation of the project and recommends disbursements, which can be on either a reimbursement basis or direct payment to the supplier or contractor. PFC's loan agreements have provision for loan suspension or cancellation in case of delay in compliance or noncompliance with loan conditionalities. PFC, however, has not taken any such drastic action but has preferred to reschedule the compliance dates, at the same time indicating future suspension in case of consistent noncompliance. Although PFC's loan agreements require a completion report to review the benefits of projects, no such reports have been prepared. This indicates incompleteness in project supervision and evaluation.

4. Other Operations

36. PFC's term loans are in local currency as well as in foreign exchange. PFC's policy approves loans in any currency, including foreign currency. As of March 2000, PFC had approved 1,011 loans totaling Rs223.3 billion (\$4.9 billion), 2 cases of lease financing for Rs2.8 billion (\$63 million), 2 loans for bill discounting for Rs1.0 billion (\$22 million), and 20 working capital loans for Rs8.3 billion (\$182 million). Details of year-wise approvals of loans and other operations are in Appendix 9.

E. Financial Performance of PFC

37. Initially, PFC's financial management was weak due to mainly the absence of a full-time finance director for about two years. The director was appointed in 1995 and PFC embarked on a major structural revamp to strengthen its financial management functions and to operate on commercial principles. These initiatives strengthened the treasury management capabilities, and improved resource collection and exchange risk management. PFC's financial performance since 1994 is in Appendix 10. The balance sheets since 1993 are in Appendix 11. The income statements since 1993 are in Appendix 12. The cash flow statements since FY1995/96 are in Appendix 13.

38. At the end of the FY ending 31 March 2000, PFC's total paid-up capital remained at Rs10.3 billion out of an authorized capital of Rs20.0 billion. The government is not likely to provide further equity support to PFC in the near future. Total funding in year 2000 increased by Rs24.4 billion to Rs121.8 billion and its net worth stood at Rs32.6 billion, which is about 27 percent of total funding. Overall, debt increased by 28 percent to Rs77.4 billion of the total borrowings: the domestic market accounted for Rs54.6 billion and the remaining Rs22.8 billion were foreign currency loans, which included, in addition to loans from the World Bank and ADB, euro note issues and other syndicated loans.

39. Outstanding loans and advances stood at Rs115.5 billion after a disbursement of Rs34.0 billion, an increase of 38 percent over the previous year. This reflects a marked increase in business activities as 108 loans to 35 borrowers were approved during the year. Eight loans for private sector projects were approved. At the end of FY2000, total overdue arrears stood at Rs98 million, reflecting an average collection rate of 99.6 percent. The collection rate on current billing is around 100 percent; however, the recovery rate of accounts in arrears is nominal. The level of total arrears was reduced by restructuring delinquent loans, which were converted to repayments in monthly installments backed up by revenue escrow agreements in addition to state guarantees.

40. PFC's portfolio quality, however, continues to be a matter of concern. According to the classification agreed upon with ADB, which also considers timely payments and auditing/financial reporting, the portfolio at the end of FY1998 had only 17.17 percent normal assets. But as per the RBI guidelines on portfolio classification, which are effective from FY1999 onward, state-guaranteed loans are to be classified as risk free, in which case PFC's portfolio, had a healthy 96.29 percent normal risk assets as of 31 March 2000. With RBI's method of loan classification, PFC does not have any nonperforming assets. Nevertheless, PFC has a provision for bad debts, which is at Rs1.0 billion as of FY2000. The portfolio quality analysis is in Appendix 14.

41. Revenue from operations and other income in FY2000 amounted to Rs16.1 billion, of which interest from loans amounted to Rs14.7 billion. Total operating expenses amounted to

Rs8.4 billion, of which interest expenses represented Rs7.5 billion. After adjustments and provision for taxes, PFC earned a net profit of Rs6.2 billion, an increase of about 15 percent over the previous year.

42. Nevertheless, even with impressive financial figures, PFC's portfolio will continue to be risky unless its major borrowers, i.e., SEBs, undergo total restructuring so that the sector becomes commercial, competitive, and creditworthy.

F. Financial Statements and Ratios

1. Current Ratio

43. The current ratio measures the firm's ability to meet its maturing short-term obligations. The current ratio of PFC was marginally reduced from 2.34 in FY1995 and 2.88 in FY1998 to 1.19 in FY2000, but during the project period it has been more or less stable between 2 and 3. PFC has complied with the stipulation at appraisal, that it maintain liquidity sufficient for three months. The operational policy statement (OPS) of PFC states that it should be ensured that the corporation should ensure possession of and accessibility to sufficient liquid funds to meet normal transaction requirements and to provide a cushion against enforceable liquidity needs.

2. Debt-Equity Ratio (Long-Term Debt to Equity)

44. The long-term debt-to-equity ratio (D/E) of PFC increased from 1.57 in FY 1994 to 2.12 in FY1998 to 2.38 in FY2000. As stated during loan appraisal and as formalized in PFC's OPS, D/E not exceeding 6:1 is to be maintained. The D/E as maintained over the years is well within the limits of 6:1.

3. Debt-Service Coverage Ratio

45. As stated during loan appraisal and as formalized in PFC's OPS, a minimum debt-service coverage ratio (DSCR) of 1.2 is to be maintained. The DSCR as maintained over the years is well within the limits of 6:1. PFC was in compliance with this, as at end of FY1998, the DSCR stood at 2.04.

4. Profitability Targets

46. PFC's profits (profit after tax) have increased over the years, from Rs1,434.51 million in FY1993, Rs5,276.75 million in FY1998, to Rs6,224.74 million in FY2000. As per ADB's appraisal report and PFC's OPS, PFC will endeavor to operate as a commercial entity, earning adequate rate of return on its capital (positive in real terms), maintaining a healthy loan portfolio, and building a strong financial base to enable it to borrow on attractive terms. PFC has been in compliance with this, as PFC's return (profit before tax) on net worth went up from 14.67 percent in FY1994 to 23.85 percent in FY2000. Also, as stated in OPS, PFC's lending rates will (i) be positive in real terms and (ii) reflect its borrowings and operational costs, plus a margin to ensure its financial viability. Lending documents will include a provision to ensure that lending rates are adjusted to reflect this objective. The first part has been complied with since, at loan closing in FY1998, PFC's net interest margin stood at 4.8 percent. The second part is partly complied with as the domestic currency lending of PFC is at a fixed rate of interest with provision for adjusting the lending rate on the undisbursed portion. In foreign currency loan agreements, however, such clauses are being incorporated. Return on net worth (paid-in capital + reserves) increased 1.5 times from 16.06 percent in FY1997 to 23.44 percent in FY1998, and

earnings per share more than doubled from Rs232.86 to Rs512.09. Appendix 15 shows that the profitability ratios of PFC have been increasing over the years, and the earnings per share of PFC went up from Rs154.2 in FY1994 to Rs604.08 in FY2000.

G. Covenants

47. The Government and PFC complied fully with the covenants under the loan and project agreements (Appendix 16), but only partly with the requirements of PFC's OPS (Appendix 17) as covenanted under Project Agreement Section 3.01 (a).

48. The OPS identified a set of parameters to ensure a minimum level of financial and operating performance, and guided PFC in its relationship with its clients. PFC's institutional resolve to attach adequate conditions to its lending operations and adherence to its OPS remained strong. Specifically, to be eligible for loan assistance, PFC required its borrowers to earn the minimum rate of return of 3 percent as provided for in the Electricity Act. This was to be achieved through a combination of tariff increases, cost reductions, and revenue subsidy support from the state budget whenever the state failed to authorize the necessary tariff adjustments. For year 2000, 12 SEBs posted rates of return equivalent to 3 percent. However, these were largely due to state subsidies, reflecting write-offs of state loans, and, to a lesser extent, cash infusion. Only two SEBs had average tariffs set above their average cost of supply. On hindsight, to promote financial self-sufficiency of the SEBs, it would have been advisable for PFC (and ADB) to require achievement of a minimum rate of return based on tariff revenue alone, i.e., excluding revenue subsidy.

49. As per the classification system that PFC and ADB agreed to, the quality of PFC's lending portfolio was unsatisfactory. As of July 1998, PFC's assets was classified as follows: (i) normal risk assets, 17.17 percent; (ii) substandard assets, 78.68 percent; (iii) doubtful assets, 4.04 percent; and (iv) loss assets, 0.11 percent. In contrast, by the risk classification norms set by RBI, PFC's assets in 1998 were classified significantly better as follows: (i) normal risk assets, 79.69 percent; (ii) substandard assets, 20.17 percent; (iii) doubtful assets, 0.14 percent; and (iv) no loss assets. Under RBI norms, state-guaranteed loans are regarded risk-free, even if in practice, PFC has had difficulty calling on them.

50. PFC did not comply with two important requirements of its OPS. The first covenant related to limiting PFC's exposure to a single client to 25 percent of PFC's net worth. Such a limit is essential for PFC's portfolio quality. PFC exceeded its exposure to eight of its borrowers on the justification that the funded projects will improve the financial position of the borrower. The other major noncompliance related to nonrescheduling of repayments due from its borrowers. PFC agreed on rescheduling of repayments from five borrowers. Though PFC generally does not encourage such actions, circumstances arise when adjustments are necessary to recover dues, specially from state-government-owned entities. In conclusion, it is felt that despite noncompliance, both these conditions should form an integral part of PFC's policy guidelines, and the management should conduct better due diligence to avoid such circumstances.

H. Performance of ADB

51. ADB's performance was satisfactory during project implementation. ADB staff closely coordinated with PFC staff and responded with timely assistance to PFC and the SEBs. Although, ADB had identified at appraisal the financial and management risks, the lending methodology was to assist the Government in introducing OFAPs through lending by PFC. This

assumption seems promising, given the unsatisfactory experience with earlier ADB-supported projects,⁵ which were considerably delayed. However, the expectation that substantial improvements would result was unrealistic under the existing administrative framework. At appraisal, ADB assisted PFC in preparing the OPS, which focused on PFC to ensure that adequate prudential norms, financial management systems, and credit evaluation procedures were adopted. ADB also reviewed OFAP formulation all through its development stage. Two major assumptions at appraisal seem too optimistic in retrospect. The first was the expectation that the subborrower would be able to comply with the multiple OFAP requirements, and the second, acceptance of revenue subsidies fully in lieu of adequate tariff adjustments. The second should not have been accepted as the subsidies affected the state initiatives in other important sectors such as health, education, and other social sectors.

52. During project implementation, 12 review missions were fielded. In 1995, ADB participated in a joint review with the World Bank and USAID. After the project was transferred to the India Resident Mission for supervision from January 1996, interaction with PFC and the SEBs increased substantially, resulting in an increase in contract awards and disbursements and physical progress. ADB staff visited many of the project sites for physical verification, resolved many complicated procurement issues, and ensured sustained disbursements and improved portfolio quality.

III. EVALUATION

A. Loan Appraisal

1. Distribution of Subloans

53. In line with the technical objectives of the loan, at appraisal the plan was to onlend ADB loan funds to four core SEBs who would account for 70 percent of the loan amount. Further, the funds would be utilized for subprojects covering (i) renovation and modernization of power plants; (ii) installation of capacitors; (iii) rehabilitation and reinforcement of urban distribution; and (iv) reinforcement of transmission systems at 66 kV, 132 kV, and 220 kV levels. As one of the prospective subborrowers, Damodar Valley Corporation (DVC), could not meet the eligibility criteria, TNEB was approved to take the place of DVC. A fifth SEB, APSEB, was included as a noncore SEB with approval for one subproject for installing of capacitors.

54. During project implementation, sectoral distribution (para. 17) could not be fully maintained because the number of subprojects in the sectors was not sufficient to fully utilize the loan funds. Accordingly, it was agreed that a number of 400 kV transmission lines be financed under the loan. At the time of approval, it was envisaged that up to 70 percent of the loan amount would be allocated to the four core SEBs and the remaining 30 percent to SEBs meeting less stringent criteria. During implementation, the 70:30 ratio could not be maintained, and ultimately the four core SEBs utilized 98.5 percent of the loan with APSEB, the noncore SEB accounting for the remaining 1.5 percent. Nevertheless, the originally planned subsector distribution was not changed drastically and the appraisal objective of improving the power systems was generally met.

⁵ Loan 798-IND: *North Madras Thermal Power Project*, for \$150 million, approved on 18 November 1986; Loan 907-IND: *Unchahar Thermal Power Project*, for \$160 million, approved on 29 September 1988; Loan 988-IND: *Rayalaseema Thermal Power Project*, for \$230 million, approved on 21 November 1989; and Loan 1029-IND: *Second North Madras Thermal Power Project* for \$200 million, approved on 30 August 1990.

2. Covenants

55. The loan covenants covered all aspects related to the Project as well as PFC's own operational performance. PFC is in compliance with all the major covenants under the loan except for two relating to implementation of its OPS. The first covenant limits PFC's exposure limit to a single client to 25 percent of PFC's net worth. Such a limit, essential for PFC's portfolio quality, was in practice exceeded for eight of PFC's borrowers. The justification was that the funded projects will improve the financial position of the borrower. The other major non-compliance relates to nonrescheduling of repayments due from borrowers. PFC agreed on rescheduling repayments from five of its borrowers. Although, PFC does not encourage such actions, circumstances arise when adjustments are to be made to recover dues, specially from state-government-owned entities. In conclusion, it is felt that despite non-compliance, both conditions should continue to form an integral part of PFC's policy guidelines, and the management should conduct better due diligence to prevent such circumstances.

3. Quality of Appraisal

56. The appraisal exercise required an elaborate and detailed study of the Indian power sector so as to focus on the key elements that needed to be addressed up-front. This required intensive coordination with the Government, various ministries and associated departments, other aid agencies, and PFC to ensure that the key elements were addressed well before loan approval. The main task of the appraisal team was to assist PFC in preparing its initial OPS, which would guide its operations. Subsequently, preparing the OFAP guidelines, and assisting PFC and the core SEBs in drafting and approving the OFAPs required extensive involvement of the processing team. The OPS led PFC to follow prudent norms and the OFAPs concentrated on improving the financial and operational management performance of the SEBs. The team encouraged PFC to ensure that all necessary security measures were incorporated in the documents. On hindsight, however, the modest assistance PFC provided through the ADB loan was insufficient to encourage large-scale reforms in the power sector. Moreover, accepting state government subsidies in lieu of regular tariff adjustments to achieve the minimum rate of return of 3 percent on fixed assets was not a prudent decision. It is felt that although PFC and the core SEBs did not fully comply with many key covenants, these conditions must remain in the OPS and OFAPs and be adhered to so as to maintain a sustainable existence. Significantly, as envisaged at appraisal, PFC has emerged as a major source of financing in the Indian power sector, for both the public and private sectors, but the states could not achieve the appraisal estimates. The state power sector requires extensive reforms, which will be possible only with a more comprehensive state-level, long-term support by financial institutions.

B. Implementation

57. Over the years, PFC's lending policies have adjusted to the needs of the sector, the sector focus of the states, and the emerging power sector scenario. From direct lending to SEBs, PFC has graduated to reform-based lending. Its operation policies have undergone changes and have been expanded to include central-Government-owned power utilities and private sector projects. It has expanded its business from term loans to include other services. It has reduced its resources and has tapped the Indian as well as overseas money markets. Due to these initiatives, PFC's turnover has increased substantially. With the revised guidelines of the RBI, PFC's portfolio has been recategorized. Currently, 96.29 percent of its portfolio is considered as normal assets. Collection performance has also improved to 99.6 percent of its current outstanding as of FY2000. Security packages are robust and the overall financial and operational performance is satisfactory. Although considerable time is being spent in

formulating of the Re-OFAPs and obtaining proper securities such as escrow on the SEBs' main revenue bank accounts and state government guarantees, PFC needs to strictly enforce its OPS, which, in turn, requires its borrowers to adhere to the Re-OFAP conditions. Nonadherence to conditions should attract sanctions that could include invoking of escrow and state guarantee, suspension of disbursements, and cancellation of loans.

58. Although PFC has an elaborate system of project approval based on EIRR, no evaluation is done on project completion to determine the benefits of the Project. Evaluation is a crucial component in project administration for a development finance institution (DFI) and must be conducted for all projects. Also, PFC needs to carefully monitor project implementation till completion. Some subprojects are still under implementation even after more than two years of loan closing, due to insufficient counterpart funds (Appendix 2). PFC has been advised to review the situation and provide additional funds, if necessary, to help the SEBs in completing the remaining incomplete subprojects. PFC needs to institutionalize a system of project evaluation methodology in its operations. PFC also needs to further develop its own staff and train them to align effectively to the currency and future developments of the power sector. To achieve this, PFC's management needs to review its current organization structure and business focus to compete with the increasing involvement of private sector banks.

59. One of the conditions for PFC's subloans was that the subborrowers submit completion reports to PFC immediately after subproject completion. None of the subborrowers under the ADB loan complied. As a result PFC could not submit the project completion report to ADB. PFC as a DFI needs to assess the results of its support by evaluating the performance of each project to identify reasons for success or failure, lessons learned, and changes required in its operations and approach.

IV. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

60. The project achieved its physical objectives of investing in transmission, distribution, renovation and modernization of power plants; resulted in better utilization of the facilities; reduced technical losses; and improved power system stability, reduced power outages, and stabilized frequency fluctuations. Of the 123 subprojects, 115 were completed and 8 are still under implementation although more than two years have elapsed since loan closing. The reason for non-completion is the shortage of counterpart funds. Finalizing the subprojects and the bidding documents also suffered significant delays. PFC will need to closely monitor till completion the implementation of projects it financed and thereafter evaluate the benefits accrued in line with its role as a DFI.

61. Development objectives were, however, not fully achieved. Through the OFAP process, PFC could instill awareness among the SEBs and the state governments of the need to improve the SEB financial and management autonomy. Many financial and institutional improvements laid out in the OFAP were due to the sector policies prevalent at that time. Tariff reform was not carried out and the required rate of return of 3 percent was maintained through subsidies and writing off of state loans.

62. However, the objective of assisting PFC to develop into a power sector DFI has been achieved. Despite the risky market it serves, PFC's business has expanded significantly. PFC has been able to effectively manage its financial risks, thus paving the way for enhanced fund mobilization, both domestic and international. As of 31 March 2000, PFC's total funding stood

at Rs121.8 billion with a net worth of Rs32.6 billion. Posttax profits reached Rs6.2 billion on a revenue base of Rs16.1 billion. Consequently, a return on net worth of 19 percent was achieved. Collection vastly improved at 99.6 percent. As its portfolio remains risky, PFC has diversified its client base to include central-Government-owned and privately owned power utilities in addition to using other types of financial instruments and services. In view of the foregoing, the overall performance of the Project can be rated as partly satisfactory.

B. Lessons Learned

63. Without a comprehensive reform and restructuring of the Indian power sector, the development objectives of power sector loans will not be achieved.

64. The loans, subloans, OFAPs, and OPS included some conditions and performance targets that had to be addressed. Some of the targets involved political decisions and thus were difficult to achieve as PFC did not have sufficient leverage to influence the states to adopt key policy changes.

65. For complex projects involving a number of subloans and borrowers, compliance with loan conditions should be ensured prior to subloan approval as noncompliance with future targets may jeopardize project implementation.

66. Accepting revenue subsidies instead of adjusting tariffs had an adverse effect on tariff reforms and the independence of the SEBs. Due to their own political priorities, the state governments preferred to provide higher subsidies -which affected the state finances- to raising tariffs.

67. The EIRR is not an adequate criterion for subproject acceptance. A positive FIRR should be given a higher weight in subproject evaluation. In the future, PFC should accept only projects that show a positive FIRR to ensure that ADB-financed investments do not contribute to further financial losses to the borrower.

68. There is need to have a sufficiently long list of eligible subprojects ready before loan approval. Also, procurement action should start well in advance so that at least 50 percent of the contracts to be financed from the ADB loan can be awarded immediately after loan effectiveness. This would mean that there should be agreement on the subproject format, bidding documents, and bidding procedures at an early stage of loan processing.

69. ADB should encourage the Borrowers to resort to turnkey contracts as it is seen that such contract packaging contribute to timely completion of subprojects.

70. In view of the enormous number of subloans and procurement packages, disbursements should be based on subloans rather than on contract payments.

C. Recommendations

71. Future ADB lending to SEBs through PFC should be extended only if the borrowing states have embarked on a reform agenda that ADB would otherwise require under its state-level power sector support as in case of Gujarat and Madhya Pradesh. PFC should apply more due diligence in evaluating loan proposals, strictly enforce its policies on exposure limits, and continue to serve as a key element in the central Government's assistance to the power sector, particularly in providing financial incentives to reforming states. PFC should evaluate its own

strengths and needs and examine the possibilities of institutional strengthening for overseeing complex reform processes and financing the private sector. ADB will also need to conduct a detailed evaluation of PFC's policies in the emerging power sector scenario, its readiness to adjust to changes, ability to guide the SEBs in their reform agenda, its capacity to maintain prudent financial and operational norms, and independence in decision making. Because PFC will have to take a lead role in implementing the Government's policies, it should strive to insulate itself from government control in its business operations.

72. In conclusion, it is recommended that ADB should continue with its efforts in comprehensive state-level support through PFC as well as directly with selected state governments, encourage the development of a national grid, and facilitate subregional cooperation in the power and energy sectors.

APPENDIXES

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14	Portfolio Quality Analysis	41	11,40
15	Ratio Analysis	43	13,46
16	Status of Compliance with Major Loan Covenants	44	13,47
17	Status of Compliance with Operational Policy Statement	50	13,47

**POWER FINANCE CORPORATION'S
FINANCING INSTRUMENTS AND SERVICES PROVIDED**

- Term Loans
- Financial Guarantees
- Lease Financing
- Bill Discounting
- Working Capital Loans
- Loan Syndication
- Lenders' Engineer Services
- Consultancy Services

Source: Power Finance Corporation.

APPROVED SUBPROJECTS
(Rs million)

Sl. No.	Project Name	Project Type	Date of Application to ADB	Date of ADB Approval	Project Cost	Subproject Financing		Final Cost	Status
						PFC	ADB		
Karnataka Electricity Board			18/Feb/1992	01/Jun/1992					
1	220 kV S/S at Hubli-II	Transmission	18/Feb/1992	01/Jun/1992	221.10	99.50	55.50	221.10	Completed
2	220 kV S/S at Yarangdhally	Transmission	24/Mar/1993	25/Mar/1993	179.00	80.50	44.50	172.00	Completed
3	110 kV S/S at Byadagi	Transmission	15/Jun/1993	–	44.20	5.40	25.60	38.80	Completed
4	220 kV S/S at Chikkodi	Transmission	15/Jun/1993	–	171.10	68.50	51.50	169.00	Completed
5	220 kV S/S at Daddavallapur	Transmission	15/Jun/1993	–	116.10	29.00	52.00	109.70	Completed
6	110 kV S/S at Yadgir	Transmission	28/Sep/1993	–	60.50	25.10	16.93	43.60	Completed
7	110 kV Jamkhandi-Buapur Line	Transmission	28/Sep/1993	–	42.50	19.40	10.64	28.10	Completed
8	220 kV S/S at Hagaribommalalli	Transmission	28/Sep/1993	–	144.00	56.00	44.60	133.70	Completed
9	110 kV S/S at Alland	Transmission	28/Sep/1993	–	71.00	26.50	23.50	57.80	Completed
10	110 kV S/S at Afzalpur	Transmission	28/Sep/1993	–	64.70	22.40	22.64	62.70	Completed
11	110 kV S/S at Mache	Transmission	28/Sep/1993	–	89.80	36.00	26.99	73.10	Completed
12	220 kV S/S at Bellary	Transmission	07/Mar/1994	–	161.80	58.00	55.00	151.80	Completed
13	100/33 kV S/S at Ankali etc.	Transmission	07/Mar/1994	–	191.10	40.30	93.70	161.30	Completed
14	220 kV Transfer at Raichur S/S	Transmission	09/Jun/1994	–	45.20	3.50	28.50	45.20	About 85% of work done
15	220/110 kV /S at Haveri	Transmission	09/Jun/1994	–	254.50	78.00	100.00	254.80	Completed
16	220/110 kV /S at Gadag	Transmission	09/Jun/1994	–	125.10	17.10	70.90	125.10	Completed
17	110/11 kV /S at Sasthapur	Transmission	09/Jun/1994	–	80.60	16.90	39.10	55.00	Completed
18	220/66 kV S/S at Kadakola & Lines	Transmission	09/Jun/1994	–	234.60	37.30	126.70	234.60	Completed
19	110/33-1 kV S/S at Badami & Lines	Transmission	26/Jul/1994	–	48.00	6.10	27.90	23.10	Completed
20	220 kV S/S at Kemar	Transmission	26/Jul/1994	–	173.60	24.80	97.20	173.50	Completed
21	220/110 kV S/S at Kustagi & Lines	Transmission	20/Jan/1995	21/Jun/1995	268.49	21.10	166.90	260.00	Completed
22	220/110 kV S/S at Mandya & Lines	Transmission	20/Jan/1995	21/Jun/1995	318.66	22.30	200.70	318.80	About 85% of work done
23	220/66 kV S/S at Kunigal	Transmission	21/Apr/1997	12/May/1997	320.10	48.00	144.00	320.10	About 84% of work done
24	220/66 kV S/S at Mallur	Transmission	21/Apr/1997	12/May/1997	375.70	56.00	169.00	376.70	Completed
25	220/66 kV S/S at Chintamani	Transmission	21/Apr/1997	12/May/1997	288.55	49.00	124.00	288.60	Completed
26	Bangalore Phase II	UD	16/Sep/1992	15/Dec/1992	300.60	135.00	75.00	300.50	Completed
27	Mysore	UD	15/Jun/1993	–	232.00	109.00	58.00	200.90	Completed
28	Mangalore	UD	28/Sep/1993	–	284.00	127.90	71.00	257.50	Completed
29	Tumkur	UD	28/Sep/1993	–	141.00	63.60	35.50	137.80	Completed
30	Belgaum	UD	28/Sep/1993	–	116.90	52.70	29.00	100.80	Completed

Source: Power Finance Corporation.

Note: kV = kilovolt, S/S = substation, MVAR = megavolt-ampere reactive power, TPS = thermal power station, R&M = renovation and modernization of power plants, UD = urban distribution.

Sl. No.	Project Name	Project Type	Date of Application to ADB	Date of ADB Approval	Project Cost	Subproject Financing		Final Cost	Status
						PFC	ADB		
31	Gulbarga	UD	01/Dec/1993	–	89.80	40.50	22.50	81.00	Completed
32	Hubli-Dhawaar	UD	01/Dec/1993	–	141.10	63.70	35.30	141.10	About 81% of work done
33	Shimoga	UD	01/Dec/1993	–	53.80	25.50	13.50	53.80	Completed
34	Bellary	UD	27/Dec/1993	–	109.20	48.70	27.30	109.20	Completed
35	Bhadravathy	UD	18/May/1994	–	19.20	8.20	4.80	19.20	Completed
36	Mandya	UD	18/May/1994	–	89.90	26.00	37.00	89.90	Completed
37	Gadag-Betageri	UD	18/May/1994	–	83.80	21.10	37.90	83.80	Completed
38	Kolar	UD	08/Jul/1994	–	71.30	23.90	26.10	71.30	Completed
39	Raichur	UD	08/Jul/1994	–	64.80	16.30	28.70	64.80	Completed
40	Chitradurga	UD	26/Jul/1994	–	74.60	22.50	29.50	74.50	Completed
41	Davangere	UD	26/Jul/1994	–	156.80	45.60	64.40	156.30	Completed
42	Hospet	UD	15/Sep/1994	–	71.60	19.20	30.80	71.60	Completed
43	Udupi	UD	15/Sep/1994	–	55.40	14.20	24.80	55.40	Completed
44	Bijapur	UD	24/Oct/1994	–	56.90	19.00	21.00	56.90	Completed
45	Hassan	UD	29/Nov/1994	–	99.10	14.00	55.00	99.10	Completed
46	Bangalore City Phase III	UD	21/Apr/1997	12/May/1997	351.70	105.00	105.00	322.10	About 80% of work done
47	Mysore City Phase II	UD	21/Apr/1997	12/May/1997	322.10	96.50	96.50	351.70	Completed
48	180 MVAR Capacitors	Capacitors	15/Dec/1993	17/Dec/1993	52.40	10.50	31.50	52.40	Completed
Maharashtra State Electricity Board			19/Feb/1992	01/Jun/1992					
49	Aug of S/S at Pune Distt. (Pawana, Lonawala, Khadakwasala, Walchandnagar)	Transmission	17/Sep/1992	22/Mar/1993	63.20	18.70	25.50	56.80	Completed
50	220 kV S/S at Parbhani	Transmission	28/Sep/1993	–	176.00	79.00	44.00	122.50	Completed
51	220 kV S/S at Akola	Transmission	28/Sep/1993	–	315.00	123.00	97.70	315.00	Completed
52	220 kV S/S at Dondaicha & Lines	Transmission	01/Dec/1994	–	240.20	33.50	134.50	220.60	Completed
53	132 kV S/S at Risod & Lines	Transmission	21/Dec/1994	–	82.70	15.50	42.50	61.50	Completed
54	132 kV S/S at Umrijambazar & Digras	Transmission	21/Dec/1994	–	199.80	40.90	99.10	161.60	Completed
55	220 kV Network at Jejuri-Lonard-Baramati Belt	Transmission	21/Dec/1994	–	155.50	20.40	88.60	139.50	Completed
56	132 kV S/S at Nanpur & Pathri	Transmission	20/Jan/1995	21/Jan/1995	135.00	28.00	67.00	104.20	Completed
57	132 kV S/S at Chincholi	Transmission	20/Jan/1995	21/Jan/1995	79.40	19.00	37.00	56.60	Completed
58	400 kV S/S at Aurangabad	Transmission	30/Dec/1994	11/Jan/1995	923.00	89.40	556.60	923.00	Completed
59	400 kV S/S at Kolhapur	Transmission	18/Jan/1995	21/Jan/1995	1,178.00	107.80	717.20	1,178.00	Completed
60	220 kV S/S at Chikali	Transmission	01/Jun/1997	03/Oct/1997	505.00	141.30	161.70	505.00	Completed
61	220 kV S/S at Sawantwadi	Transmission	01/Jun/1997	03/Oct/1997	321.90	83.73	109.27	321.90	Completed
62	Akola	UD	19/Feb/1992	01/Jun/1992	63.70	28.00	16.00	59.40	Completed

Source: Power Finance Corporation.

Note: kV = kilovolt, S/S = substation, MVAR = megavolt-ampere reactive power, TPS = thermal power station, R&M = renovation and modernization of power plants, UD = urban distribution.

Sl. No.	Project Name	Project Type	Date of Application to ADB	Date of ADB Approval	Project Cost	Subproject Financing		Final Cost	Status
						PFC	ADB		
63	Ulhasnagar	UD	15/Jun/1993	–	212.00	95.00	53.00	212.00	About 87% of work done
64	Dombiviti	UD	15/Jun/1993	–	216.00	97.00	54.00	216.00	About 83% of work done
65	Kalyan	UD	15/Jun/1993	–	84.00	37.00	21.00	84.00	About 86% of work done
66	Aurangabad	UD	15/Jun/1993	–	59.00	26.00	15.00	53.10	Completed
67	Amravati	UD	01/Dec/1993	–	72.80	20.60	30.40	72.30	Completed
68	Nanded	UD	01/Dec/1993	–	58.70	26.30	14.70	53.70	Completed
69	Solapur	UD	01/Dec/1993	–	64.70	28.80	16.20	54.50	Completed
70	Kolhapur	UD	27/Dec/1993	–	68.90	31.50	17.50	61.50	Completed
71	Latur	UD	27/Dec/1993	–	61.50	27.60	15.40	61.50	Completed
72	Jalgaon	UD	27/Dec/1993	–	62.00	27.50	15.50	51.10	Completed
73	Nasik	UD	01/Mar/1994	–	96.80	43.80	24.20	64.90	Completed
74	Addl. R&M of Bhusawal TPS	R&M	04/Oct/1993	–	25.80	4.10	7.20	25.10	Completed
75	Addl. R&M of Chandrapur TPS	R&M	04/Oct/1993	–	9.90	0.90	1.70	9.90	Completed
76	Addl. R&M of Parli TPS	R&M	04/Oct/1993	–	17.90	0.60	1.10	17.80	Completed
77	Addl. R&M of Nasik TPS	R&M	04/Oct/1993	–	85.40	3.30	6.00	85.40	Completed
78	Addl. R&M of Koradi TPS	R&M	09/Jun/1993	–	262.00	50.70	91.70	262.00	Completed
Grid Corporation of Orissa			16/Sep/1992	18/Jun/1993					
79	220 kV S/S at Bhanjanagar, Dubri and Aska	Transmission	17/Sep/1992	24/Jun/1994	180.00	–	72.50	170.20	Completed
80	Augmentation of 132/33 kV S/S at Baripada, Bhadrak, Puri, Bolangir	Transmission	28/Sep/1993	–	90.00	–	41.30	90.00	Completed
81	Aug of 132/33 kV S/S at Joda, Sambalpur, Bolangir, Rajganjpur	Transmission	24/Jan/1994	–	170.00	3.40	76.50	106.60	Completed
82	220 Dubri-Bhadrak-Balasore Line	Transmission	07/Mar/1994	–	140.00	8.40	89.60	140.00	Completed
83	220 kV Theruvalli-Chhatrapur-Bhubaneshwar D/S Line & Chhatrapur S/S	Transmission	26/Jul/1994	23/Dec/1994	1,000.00	150.00	550.00	1,042.00	Completed
84	220 kV Ib-Brajrajnagar D/C Line	Transmission	29/Nov/1994	–	130.00	16.90	74.10	130.00	Completed
85	220 kV Indravati-Theruvalli Line	Transmission	20/Jan/1995	21/Jun/1995	200.00	48.00	92.00	200.00	Completed
86	440 kV Duburi-Merumandali Line	Transmission	20/Jan/1995	21/Jun/1995	430.00	–	300.00	430.00	Completed
87	Bhubaneshwar	UD	17/Sep/1992	18/Jun/1993	335.80	146.00	84.00	317.00	Completed
88	Rourkela	UD	28/Sep/1993	–	192.50	85.90	48.10	192.50	Completed
89	Berhampur	UD	24/Jan/1994	–	71.10	31.20	17.80	54.10	Completed
90	Cuttack	UD	24/Jan/1994	–	163.40	73.20	40.80	147.10	Completed
91	Bolangir	UD	24/Jan/1994	–	28.70	12.80	7.20	21.70	Completed

Source: Power Finance Corporation.

Note: kV = kilovolt, S/S = substation, MVAR = megavolt-ampere reactive power, TPS = thermal power station, R&M = renovation and modernization of power plants, UD = urban distribution.

Sl. No.	Project Name	Project Type	Date of Application to ADB	Date of ADB Approval	Project Cost	Subproject Financing		Final Cost	Status
						PFC	ADB		
92	Jeypore	UD	24/Jan/1994	–	61.70	19.40	10.70	51.70	Completed
93	Sambalpur	UD	24/Jan/1994	–	35.60	15.10	8.90	30.60	Completed
94	Balasore	UD	24/Jan/1994	–	61.10	26.70	15.30	50.60	Completed
95	Bhadrak	UD	18/May/1994	–	47.90	21.00	12.00	47.90	Completed
96	Jatni	UD	26/Jul/1994	–	32.70	13.80	8.20	50.90	Completed
97	Jharsuguda	UD	26/Jul/1994	–	35.30	15.20	8.80	35.30	Completed
98	Baripada	UD	24/Oct/1994	–	54.10	23.50	13.50	37.00	Completed
99	Bhowanipatna	UD	24/Oct/1994	–	28.00	12.00	7.00	19.00	Completed
100	Brajrajnagar	UD	29/Nov/1994	–	40.90	9.40	19.60	40.90	Completed
101	Bargarh	UD	29/Nov/1994	–	66.40	20.10	25.90	54.50	Completed
102	250 MVAR Capacitor Banks	Capacitors	07/Sep/1993	24/Sep/1993	165.00	16.20	59.80	155.50	Completed
103	52.5 MVAR Capacitor Banks	Capacitors	08/Jul/1994	–	13.00	2.60	7.80	13.00	Completed
Tamil Nadu Electricity Board			19/Jul/1993	14/Sep/1993					
104	330 kV S/S at Cuddalore	Transmission	01/Dec/1993	17/Dec/1993	260.10	25.90	156.10	261.00	Completed
105	230/110 kV S/S at Puddokottaj	Transmission	09/Jun/1994	–	268.90	26.60	161.40	268.90	Completed
106	230/110 kV S/S at Nagarcoil	Transmission	09/Jun/1994	–	521.30	7.00	358.00	521.30	Completed
107	230/110 kV S/S at Thiruvannamalai	Transmission	26/Jul/1994	–	215.30	7.40	143.60	216.30	Completed
108	230/110 kV S/S at Thanjavur	Transmission	26/Jul/1994	–	328.80	7.40	222.60	320.80	Completed
109	230/110 kV S/S at Paramkudi & Lines	Transmission	15/Sep/1994	–	188.30	29.80	102.20	188.30	Completed
110	230/110 kV S/S at Shyamapuram & Lines	Transmission	24/Oct/1994	–	138.00	29.20	67.80	138.00	Completed
111	230/110 kV S/S at Sembati & Lines	Transmission	29/Nov/1994	–	247.70	26.00	147.00	247.70	Completed
112	Trichy	UD	11/Jan/1994	28/Mar/1994	250.30	94.90	80.10	250.30	Completed
113	Kanchipuram	UD	08/Jul/1994	–	55.80	8.30	30.70	55.80	Completed
114	Tindivanam	UD	08/Jul/1994	–	20.50	4.40	9.60	20.50	Completed
115	Rajapatyam	UD	26/Jul/1994	–	60.70	14.30	27.70	60.70	Completed
116	Mayiladuthurai	UD	26/Jul/1994	–	38.30	8.00	19.00	38.30	Completed
117	Tirupur City Phase II	UD	11/Apr/1997	12/May/1997	260.30	78.00	78.00	260.30	Completed
118	Salem	UD	11/Apr/1997	12/May/1997	262.30	78.50	78.50	262.30	Completed
119	324 MVAR Capacitor Banks	Capacitors	08/Jul/1994	19/Aug/1994	229.30	–	183.00	229.30	Completed
120	512 MVAR Capacitor Banks	Capacitors	11/Apr/1997	12/May/1997	309.60	41.40	206.60	309.80	Completed
121	302 MVAR Capacitor Banks	Capacitors	11/Apr/1997	12/May/1997	201.40	31.60	129.40	201.40	Completed
122	Electric Meters	Meters	28/Sep/1994	21/Jun/1995	78.50	6.20	48.80	78.50	Completed

Source: Power Finance Corporation.

Note: kV = kilovolt, S/S = substation, MVAR = megavolt-ampere reactive power, TPS = thermal power station, R&M = renovation and modernization of power plants, UD = urban distribution.

Sl. No.	Project Name	Project Type	Date of Application to ADB	Date of ADB Approval	Project Cost	Subproject Financing		Final Cost	Status
						PFC	ADB		
Andhra Pradesh Electricity Board									
123	400 MVAR Capacitor Banks	Capacitors	20/Jul/1994	19/Aug/1994	252.50	–	202.00	233.90	Completed
Total					20,127.10	4,699.93	9,502.87	20,251.70	

Source: Power Finance Corporation.

Note: kV = kilovolt, S/S = substation, MVAR = megavolt-ampere reactive power, TPS = thermal power station, R&M = renovation and modernization of power plants, UD = urban distribution.

SOURCES OF FUNDS
(Rs million)

Item	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000
Resources								
Equity Capital	9,854.5	9,854.5	10,304.5	10,304.5	10,304.5	10,304.5	10,304.5	10,304.5
Interest Subsidy Fund	-	-	-	-	-	1,941.6	5,058.6	7,322.9
Reserves and Surplus	3,703.1	5,078.3	6,340.5	7,908.3	9,888.4	14,498.5	18,713.3	23,556.1
Borrowings								
PFC Bonds	18,184.4	18,542.5	18,072.2	18,901.3	22,993.5	24,365.3	20,088.5	25,085.7
Foreign Loans	5,446.2	5,947.5	7,896.5	10,834.7	8,773.7	12,983.3	18,107.4	22,819.6
Public Deposits	125.7	125.5	32.0	3.3	-	-	-	-
Rupee Loans from Government of India	-	-	-	-	9,400.0	12,817.7	15,311.3	15,291.3
Term Loans from Banks	-	-	-	-	-	900.0	7,000.0	14,250.0

Source: Power Finance Corporation (PFC).

CHRONOLOGY OF MAIN EVENTS IN PROJECT IMPLEMENTATION

Date	Event
1988	
Dec	Country Programming Mission. A loan to Power Finance Corporation (PFC) was included for calendar year 1990.
1989	
2 Feb	Concept clearance approved.
24 Feb–8 Mar	Fact-finding.
10-21 Apr	A Consultation Mission visited India to determine post-fact-finding issues for the processing of the loan. The Mission met with officials from Department of Economic Affairs (DEA), Department of Power (DOP), Planning Commission (PC), and the financial consultant who had been engaged on the preparatory technical assistance (TA).
1990	
9–15 Feb	Consultation Mission. Follow-up to the main Fact-Finding Mission fielded in February 1989.
1991	
24 Jan	Management Review Meeting
12–22 Feb	Preappraisal Mission. Ascertain the state of preparation for the appraisal of the proposed project.
8–24 Apr	Appraisal
24 Sep–3 Oct	Review Mission (1). Follow-up of appraisal
18 Oct	Staff Review Committee Meeting
24 Oct	LTACC
13–16 Nov	Loan negotiations
1992	
4–19 Feb	Review Mission (2). Follow-up various outstanding issues in connection with the proposed project.
26 Mar	Board approval.
23 Apr	Loan Agreements and Project Agreements signed
14–21 May	Review Mission (3). Follow-up on issues relating to participation of core subborrowers, subproject appraisal reports, and general status of preparedness
1 Jun	Approval of first subproject by the Asian Development Bank (ADB)
22 Jul	Loan was declared effective.
1993	
19–29 Jan	Review Mission (4). The Mission held several discussions with PFC to review progress on project implementation and preparation of sub-project appraisal, participation of subborrowers, PFC's monitoring of state electricity boards (SEBs), and review of draft tender documents for international competitive bidding (ICB).

1994	
13–21 Jul	Review Mission (5). The Mission met with officials from Ministry of Power (MOP), PFC, Maharashtra State Electricity Board (MSEB), Karnataka Electricity Board (KEB), Tamil Nadu Electricity Board (TNEB), Orissa State Electricity Board (OSEB), Government of Orissa, World Bank (WB), United States Aid Agency (USAID). The Mission discussed issues relating to preparation of subproject, subloan agreements, procurement, disbursements, SEBs compliance with operational and financial action plan (OFAP) conditions, and PFC's management and operations. The Mission participated in a tripartite international aid agencies meeting with WB and USAID.
6 Sep	First disbursement under the Loan
1995	
6–17 Feb	Review Mission (6). The Mission followed up with PFC to discuss issues related to subproject preparation and approvals, contract awards, appointment of director of finance.
29 Mar	Award of the first contract
16–22 Nov	Midterm Review Mission (7). A joint Mission composed of ADB, WB, and USAID visited India to conduct a midterm review of the Project. The objectives were to assess the status of the Project; evaluate the extent to which project development and implementation objectives as set out during appraisal are being attained; review the performance of PFC as Executing Agency and assess its corporate and financial operations; determine and recommend required changes, if any, to project design, management, and fund allocation so as to successfully achieve project objectives; agree with PFC/Government on actions to be taken to facilitate project completion and maximize credit and grant utilization before loan closing dates; review PFC's business plans for the coming years in the context of the ongoing financial and power sector reforms in India, and assess the prospects for future assistance to PFC; and determine how best to redirect USAID's Energy Management Consultation and Training program to assist PFC in achieving its expanded role and support Government's policies on power sector reforms through PFC intervention.
1996	
15–20 Jul & 14–19 Aug	Review Meeting (8). The Mission met officials from PFC, MSEB, KEB, Grid Corporation of Orissa Ltd. (GRIDCO), government of Karnataka, and TNEB and discussed matters pertaining to subproject and project costs and funds allocation, procurement, disbursements, PFC's collection performance and portfolio quality, revised operational policy statement and proposed extension of loan closing date.
31 Dec	Terminal date for commitments in Loan Agreement
31 Dec	Initial loan closing date
1997	
19–23 May	Review Mission (9). The Mission met with officials from PFC, KEB, TNEB, GRIDCO, APSEB and MSEB. The issues discussed included approval of subprojects, procurement status, disbursements, physical progress, PFC's collection performance and portfolio quality, OFAP, and compliance with major loan covenants.

9–18 Oct	Review Mission (10). The Mission met with officials from PFC, KEB, TNEB, GRIDCO, APSEB and MSEB. The issues discussed included approval of subprojects, procurement status, disbursements, physical progress, PFC's collection performance and portfolio quality, OFAP, and compliance with major loan covenants.
	1998
16–21 Feb	Review Mission (11). The Mission met with officials from PFC, KEB, TNEB, GRIDCO, APSEB and MSEB. The issues discussed included approval of subprojects, procurement status, disbursements, physical progress, PFC's collection performance and portfolio quality, OFAP, and compliance with major loan covenants.
30 Mar	First partial cancellation of loan amount of \$40.00 million
6 Apr	Award of the last contract
3–7 Aug	Review Mission (12). The Mission met with officials from PFC, KEB, TNEB, GRIDCO, APSEB, and MSEB. The issues discussed included physical progress, disbursements, PFC's collection performance and portfolio quality, OFAP, and compliance with major loan covenants.
18 Dec	Second and final partial cancellation of loan amount of \$20.58 million
18 Dec	Final disbursement under the Project
18 Dec	Loan closed

PROJECTED AND ACTUAL DISBURSEMENTS OF LOAN PROCEEDS
(\$ million)

Calendar Year	Cumulative Disbursements	
	Projected ^a	Actual
1992	0.00	0.00
1993	0.00	0.00
1994	2.85	2.10
1995	36.85	24.78
1996	91.85	84.58
1997	150.15	159.75
1998	215.95	189.42

^a Projections as made in the annual Loan Financial Information System.

**PROJECT IMPLEMENTATION SCHEDULE
(ORIGINAL VERSUS ACTUAL)**

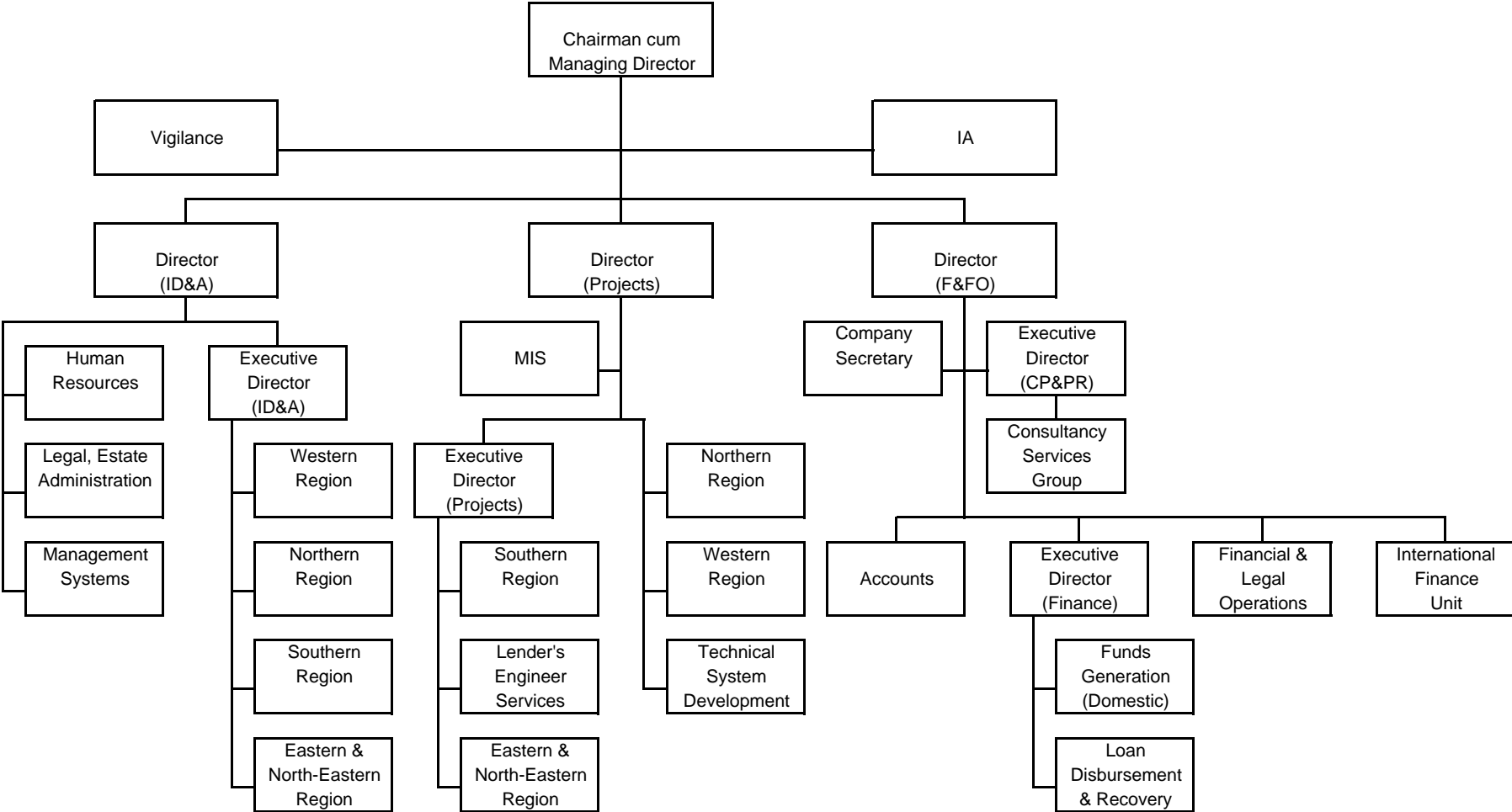
Sl. No.	Activity	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	Preparation of OFAPs for the First Four SEBs	■	■									
2	Monitoring/Updating of OFAPs			■	■	■	■	■	■	■	■	
3	Preparation of Subprojects		■	■	■				■			
4	Procurement			■	■	■	■			■		
5	Subproject Implementation by Subborrowers			■	■	■	■	■	■	■	■	■

OFAP = operational and financial action plan, SEB = state electricity board.

■ Appraisal Estimate

■ Actual

ORGANIZATION STRUCTURE



CP&PR = corporate planning & public relations, F&LO = financial & legal operations, IA = internal audit, ID&A = institutional development & administration, MIS = management information system.

Source: Power Finance Corporation.

STUDIES SUPPORTED UNDER THE EMCAT

Study	Status	Impact of Study
By United States Consultants		
1. OFAP Manual	Completed	Improved operational and financial performance
2. PFC Library Improvement Program	Completed	Better equipped with latest information on MIS
3. T&D Loss Reduction Workshop	Completed	Reduction in T&D losses
4. Organization Study of PFC	Completed	Reorganization of units for enhanced performance
5. Financial Operations Management & Reporting (Workshop)	Completed	Officers from various utilities were introduced to the latest concepts.
By Indian Experts		
1. Organization Study of PFC	Completed	Being implemented in phases
2. Study on Improving Indigenous Meter Technology	Completed	Information shared with state power utilities
3. Computerization in Power Finance Corporation	Completed	PFC has an integrated accounting system & MIS.
4. Evaluation of Benefits for HT Capacitor Installation Program	Completed	Reduction in T&D losses and improvement in the power factor
5. Rationalization of Pay and Perquisites	Completed	Being partly implemented
6. Cost Trends; System of Cost and Benefit Estimation for Power Projects	Completed	A workshop to disseminate the results of the study is planned.
7. Tariff Formulation for Different Supply Functions & Consumers.	Completed	A workshop to disseminate the results of the study is planned.
8. Case Study on Structural Reforms in Orissa (taken up in December 1997)	Completed	To learn lessons and incorporate necessary improvements in the reform in other states

MIS = management information system, OFAP = operational and financial action plan, PFC = Power Finance Corporation, T&D = transmission and distribution, HT = high tension.

Source: Power Finance Corporation.

LENDING OPERATION
(Rs million)

Instrument	31/Mar/94		31/Mar/95		31/Mar/96		31/Mar/97	
	Approved	Disbursed	Approved	Disbursed	Approved	Disbursed	Approved	Disbursed
Term Loans	14,219	7,075	16,844	7,924	16,575	10,875	21,137	15,520
Working Capital Loan								
Leasing and Bill Discounting								
Grants								
Guarantees								

Instrument	31/Mar/98		31/Mar/99		31/Mar/2000	
	Approved	Disbursed	Approved	Disbursed	Approved	Disbursed
Term Loans	28,920	19,950	33,390	24,670	58,410	27,500
Working Capital Loan					5,990	5,990
Leasing and Bill Discounting	305	305	-	10	500	550
Grants			54	54	60	10
Guarantees	DM 138	3,500	3,500	3,500	4,150	1,840
	million	million	+ \$12.5	+ \$12.5		(issued)
	+ \$4.7	+ \$4.7	million	million		
	million	million				

Source: Power Finance Corporation.

FINANCIAL OPERATIONS

Item	31/Mar/94	31/Mar/95	31/Mar/96	31/Mar/97	31/Mar/98	31/Mar/99	31/Mar/2000
Financial Highlights (\$ million)	31.37	31.50	35.50	36.11	39.73	42.62	43.81
Total Loans (\$)	1,182.21	1,347.68	1,361.69	1,562.31	1,769.95	2,130.90	2,636.09
Total Capital (\$)	490.37	528.41	513.04	553.67	604.10	656.22	743.21
Total Assets (\$)	1,380.30	1,497.05	1,486.45	1,793.52	2,032.19	2,287.19	2,781.08
Net Profit (\$)	47.02	49.62	55.46	62.59	130.23	121.16	136.38
Rate of Inflation in India (%)	8.40	10.90	7.70	4.60	4.40	6.90	3.30
Balance Sheet (Rs million)							
Cash & Cheques	650.00	300.00	-	800.00	793.00	141.00	821.00
Bank - ST	31.00	791.00	164.00	565.00	173.00	1,450.00	99.00
Bank Deposits	3,729.00	3,881.00	2,225.00	4,650.00	4,157.00	87.00	50.00
Other ST Assets	510.00	144.00	178.00	193.00	653.00	1,460.00	2,388.00
ST Investments	1,590.00	-	345.00	-	-	-	15.00
ST Loans and Advances	-	-	-	-	2,708.00	2,025.00	2,009.00
Total Current Assets (Rs million)	6,510.00	5,116.00	2,912.00	6,208.00	8,484.00	5,163.00	5,382.00
Loans & Advances	37,086.00	42,452.00	48,340.00	56,415.00	70,320.00	90,819.00	115,487.00
Provisions for Bad Debts	(303.00)	(417.00)	(560.00)	(700.00)	(802.00)	(1,050.00)	(1,301.00)
Net Loans & Advances (Rs million)	36,783.00	42,035.00	47,780.00	55,715.00	69,518.00	89,769.00	114,186.00
Gross Fixed Assets	12.00	13.00	2,087.00	2,861.00	3,161.00	3,379.00	3,517.00
Accumulated Depreciation	5.00	7.00	10.00	20.00	424.00	831.00	1,246.00
Net Fixed Assets (Rs million)	7.00	6.00	2,077.00	2,841.00	2,737.00	2,548.00	2,271.00
Total Assets (Rs million)	43,300.00	47,157.00	52,769.00	64,764.00	80,739.00	97,480.00	121,839.00
Exchange Risk Administration Fund & Borrowers Contribution	816.00	1,254.00	1,740.00	-	-	-	-
Interest Accrued	471.00	523.00	546.00	695.00	844.00	967.00	1,205.00
Proposed Dividend	100.00	300.00	400.00	480.00	1,001.00	1,199.00	1,382.00
Other Liabilities	1,907.00	2,430.00	2,129.00	2,430.00	1,885.00	1,876.00	1,941.00
Total Current Liabilities (Rs million)	3,294.00	4,507.00	4,815.00	3,605.00	3,730.00	4,042.00	4,528.00
Bonds	18,543.00	18,072.00	18,902.00	22,993.00	24,365.00	19,992.00	25,068.00
Term Loans	-	-	-	-	900.00	7,000.00	14,250.00
Interest Subsidy from Government	-	-	-	-	1,942.00	5,059.00	7,323.00
Loans - Government	200.00	1,600.00	4,600.00	9,400.00	12,818.00	15,311.00	15,291.00
Forex Loans	5,748.00	6,297.00	6,235.00	6,065.00	6,031.00	6,373.00	6,408.00
Syndicated Loans / Floating Rate Notes	-	-	-	2,708.00	2,980.00	7,473.00	12,035.00
Fixed Rate Euro Notes	-	-	-	-	3,973.00	4,262.00	4,377.00
Public Deposit Scheme	132.00	36.00	4.00	-	-	-	-
Total Debt (Rs million)	24,623.00	26,005.00	29,741.00	41,166.00	53,009.00	65,470.00	84,752.00
Share Capital	9,855.00	10,305.00	10,305.00	10,305.00	10,305.00	10,305.00	10,305.00
Share Application Money	450.00	-	-	-	-	-	-
Special Reserves	3,009.00	3,873.00	4,960.00	5,850.00	8,407.00	10,817.00	9,871.00
Bond Redemption Reserves	2,058.00	2,453.00	2,933.00	2,933.00	2,933.00	2,933.00	2,933.00
General Reserves	11.00	14.00	15.00	905.00	864.00	1,414.00	4,652.00
Profit and Loss Account Balance	-	-	-	-	1,492.00	2,499.00	4,799.00
Total Capital (Rs million)	15,383.00	16,645.00	18,213.00	19,993.00	24,001.00	27,968.00	32,560.00
Total Liabilities & Capital (Rs million)	43,300.00	47,157.00	52,769.00	64,764.00	80,740.00	97,480.00	121,840.00

ST = short term

Source: Power Finance Corporation

Item	31/Mar/94	31/Mar/95	31/Mar/96	31/Mar/97	31/Mar/98	31/Mar/99	31/Mar/2000
Income Statement (Rs million)							
Interest on Loans & Deposits	3,993.00	4,127.00	4,560.00	6,160.00	9,324.00	12,202.00	14,705.00
Income from Investments	540.00	464.00	853.00	466.00	706.00	784.00	472.00
Lease Income	-	-	39.00	455.00	909.00	847.00	774.00
Bill Discounting Income	-	-	-	-	87.00	82.00	45.00
Other Income	43.00	42.00	66.00	133.00	309.00	151.00	151.00
Total Income (Rs million)	4,576.00	4,633.00	5,518.00	7,214.00	11,335.00	14,066.00	16,147.00
Interest Expense	2,145.00	2,179.00	2,360.00	3,207.00	5,345.00	6,677.00	7,508.00
Issue Expenses	-	-	63.00	309.00	70.00	131.00	149.00
Administration Expenses	49.00	59.00	83.00	107.00	126.00	198.00	284.00
Depreciation	2.00	2.00	3.00	10.00	405.00	408.00	414.00
Interest Tax	118.00	120.00	138.00	200.00	52.00	39.00	26.00
Total Operating Expenses (Rs million)	2,314.00	2,360.00	2,647.00	3,833.00	5,998.00	7,453.00	8,381.00
Provision for Bad Debts	113.00	114.00	143.00	140.00	102.00	249.00	250.00
Total Expenses (Rs million)	2,427.00	2,474.00	2,790.00	3,973.00	6,100.00	7,702.00	8,631.00
Profit for the Year (Rs million)	2,149.00	2,159.00	2,728.00	3,241.00	5,235.00	6,364.00	7,516.00
Prior period adjustments (net)	-	-	9.00	5.00	(5.00)	(2.00)	-
Profit Before Tax (Rs million)	2,149.00	2,159.00	2,719.00	3,236.00	5,240.00	6,366.00	7,516.00
Income Tax	674.00	596.00	750.00	976.00	66.00	1,202.00	1,541.00
Profit After Tax (Rs million)	1,475.00	1,563.00	1,969.00	2,260.00	5,174.00	5,164.00	5,975.00
Ratios							
Liquidity Ratio	197.63%	113.51%	60.48%	172.21%	227.45%	127.73%	118.86%
Debt to Networth	160.07%	156.23%	163.30%	205.90%	220.86%	234.09%	260.29%
Debt Service Coverage Ratio (PBT)	200.28%	199.17%	215.34%	201.22%	205.61%	201.45%	205.62%
Debt Service Coverage Ratio (PAT)	168.86%	171.82%	183.56%	170.78%	204.38%	183.45%	185.10%
Capital as % of Assets	35.53%	35.30%	34.51%	30.87%	29.73%	28.69%	26.72%
Interest Income on Average Loan Portfolio	10.77%	10.38%	10.04%	11.76%	14.71%	15.14%	14.26%
Interest Expense on Borrowings	8.71%	8.38%	7.94%	7.79%	10.08%	10.20%	8.86%
Net Interest Margin	2.06%	2.00%	2.11%	3.97%	4.63%	4.95%	5.40%
Administration Exp / Avg Total Assets	0.11%	0.13%	0.17%	0.18%	0.17%	0.22%	0.26%
Personal & Administration Expenses as % of Average Loan Portfolio	0.13%	0.15%	0.18%	0.20%	0.20%	0.25%	0.28%
Return on Average Paid-Up Capital	14.97%	15.51%	19.11%	21.93%	50.21%	50.11%	57.98%
Return on Average Assets	3.41%	3.31%	3.73%	3.49%	6.41%	5.30%	4.90%

PAT = profit after tax, PBT = profit before tax.

BALANCE SHEETS
Table A11.1: Balance Sheets (Rs million)

Item	31/Mar/94	31/Mar/95	31/Mar/96	31/Mar/97	31/Mar/98	31/Mar/99	31/Mar/2000
A. Sources of Funds							
(1) Shareholder's Funds							
(a) Capital	9,854.50	10,304.50	10,304.50	10,304.50	10,304.50	10,304.50	10,304.50
(b) Share Application Money Pending Allotment	450.00	-	-	-	-	-	-
(c) Reserves & Surplus	5,381.43	6,757.38	8,468.24	10,387.77	14,498.52	18,713.28	23,556.07
	15,685.93	17,061.88	18,772.74	20,692.27	24,803.02	29,017.78	33,860.57
(2) Loans Funds							
(a) Secured Loans	17,477.52	17,007.09	17,836.24	21,928.42	24,200.18	17,799.71	16,799.71
(b) Unsecured Loans	7,144.21	8,997.46	11,903.92	19,241.69	26,866.10	42,610.29	60,628.49
	24,621.73	26,004.55	29,740.16	41,170.10	51,066.28	60,409.99	77,428.20
(3) Interest Subsidy Fund from Government of India			-	-	1,941.63	5,058.59	7,322.88
Total	40,307.66	43,066.44	48,512.90	61,862.37	77,810.93	94,486.36	118,611.65
B. Application of Funds							
(1) Fixed Assets							
(a) Gross Block	12.03	13.58	2,086.89	2,860.63	3,160.81	3,378.86	3,517.15
(b) Less: Depreciation	5.46	7.50	9.81	19.61	423.67	831.42	1,245.72
(c) Net Block	6.56	6.08	2,077.08	2,841.02	2,737.14	2,547.44	2,271.43
(2) Investments	4,148.84	-	345.00	-	-	-	15.00
(3) Loans	33,328.27	42,453.10	48,337.79	56,415.41	70,319.60	90,818.54	115,487.36
(4) Current Assets, Loans & Advances							
(a) Cash & Bank Balances	1,850.30	4,971.15	2,389.07	6,016.47	5,123.84	1,678.04	969.36
(b) Other Current Assets	509.53	143.70	177.99	192.97	653.03	1,459.81	2,387.97
(c) Loans & Advances	1,961.08	-	-	-	2,707.70	2,024.70	2,008.97
	4,320.91	5,114.85	2,567.06	6,209.45	8,484.57	5,162.54	5,366.30
Less: Current Liabilities & Provision							
(a) Current Liabilities	1,397.73	1,815.37	2,399.79	1,397.07	937.32	1,292.54	1,582.81
(b) Provisions	100.40	2,693.02	2,414.63	2,206.44	2,793.06	2,749.62	2,945.63
	1,498.13	4,508.39	4,814.43	3,603.50	3,730.38	4,042.15	4,528.44
(5) Net Current Assets	2,822.78	606.45	(2,247.37)	2,605.94	4,754.20	1,120.39	837.86
(6) Miscellaneous Expenditure							
(a) Preliminary Expenses	1.21	0.81	0.40	-	-	-	-
Total	40,307.66	43,066.44	48,512.90	61,862.37	77,810.93	94,486.36	118,611.65

Table A11.2: Balance Sheets (in percentage)

	31/Mar/94	31/Mar/95	31/Mar/96	31/Mar/97	31/Mar/98	31/Mar/99	31/Mar/2000
A. Sources of Funds							
(1) Shareholder's Funds							
(a) Capital	24	24	21	17	13	11	9
(b) Share Application Money Pending Allotment	1	0	0	0	0	0	0
(c) Reserves & Surplus	13	16	17	17	19	20	20
	39	40	39	33	32	31	29
(2) Loans Funds							
(a) Secured Loans	43	39	37	35	31	19	14
(b) Unsecured Loans	18	21	25	31	35	45	51
	61	60	61	67	66	64	65
(3) Interest Subsidy Fund from Government of India	0	0	0	0	2	5	6
Total	100	100	100	100	100	100	100
B. Application of Funds							
(1) Fixed Assets							
(a) Gross Block	0	0	4	5	4	4	3
(b) Less: Depreciation	0	0	0	0	1	1	1
(c) Net Block	0	0	4	5	4	3	2
(2) Investments	10	0	1	0	0	0	0
(3) Loans	83	99	100	91	90	96	97
(4) Current Assets, Loans & Advances							
(a) Cash & Bank Balances	5	12	5	10	7	2	1
(b) Other Current Assets	1	0	0	0	1	2	2
(c) Loans & Advances	5				3	2	2
	11	12	5	10	11	5	5
Less: Current Liabilities & Provision							
(a) Current Liabilities	3	4	5	2	1	1	1
(b) Provisions	0	6	5	4	4	3	2
	4	10	10	6	5	4	4
(5) Net Current Assets	7	1	-5	4	6	1	1
(6) Miscellaneous Expenditure							
(a) Preliminary Expenses	0	0	0	0	0	0	0
Total	100	100	100	100	100	100	100

Source: Power Finance Corporation annual reports.

INCOME STATEMENTS
(Rs million)

Description	31/Mar/94	31/Mar/95	31/Mar/96	31/Mar/97	31/Mar/98	31/Mar/99	31/Mar/2000
Income							
Operating Income	4,534.83	4,590.55	5,517.38	7,214.16	11,118.19	13,965.19	16,123.79
Other income	42.81	42.48	0.22	1.10	0.76	84.78	14.42
Capital Appreciation in Foreign Currency		-	-	-	216.44	16.03	8.96
Total	4,577.63	4,633.03	5,517.60	7,215.26	11,335.38	14,065.99	16,147.16
Expenses							
Interest and Other Charges	2,144.39	2,179.40	2,360.16	3,207.62	5,346.72	6,677.20	7,507.66
Up-Front Fees and Issue Expenses	0.01	0.01	62.69	308.73	69.98	130.51	149.26
Interest Tax (excluding recovered from borrowers)	118.48	120.48	138.27	200.22	52.02	39.13	26.36
Personnel and Administration Expenses	49.82	58.97	83.18	106.91	124.13	197.94	283.87
Depreciation	1.94	2.05	2.80	10.28	404.73	407.88	414.35
Preliminary Expenses Written Off	0.40	0.40	0.40	0.40	-	-	-
Provision for Bad and Doubtful Debts	113.28	113.69	-	-	-	-	-
Total	2,428.33	2,474.99	2,647.49	3,834.18	5,997.57	7,452.65	8,381.49
Profit for the Year							
Profit for the Year	2,149.31	2,158.04	2,870.11	3,381.08	5,337.81	6,613.35	7,765.68
Add(+)/Less(-) Prior Period adjustments	0.47	1.04	(8.99)	(4.83)	4.64	2.37	0.35
Profit Before Tax and Appropriations							
Profit Before Tax and Appropriations	2,149.78	2,159.08	2,861.13	3,376.25	5,342.44	6,615.71	7,766.03
Add/Less: Tax Adjustment for the Previous Years	(7.31)	(0.62)	(0.02)	(166.24)	282.34	(15.44)	(380.29)
Less: Provision for Income Tax	(667.27)	(596.20)	(750.24)	(810.48)	(348.03)	(1,186.71)	(1,161.00)
Profit Available for Appropriations	1,475.20	1,562.27	2,110.86	2,399.53	5,276.75	5,413.56	6,224.74

Source: Power Finance Corporation annual reports.

CASH FLOW STATEMENTS

(Rs million)

Particulars	31/Mar/95	31/Mar/96	31/Mar/97	31/Mar/98	31/Mar/99	31/Mar/2000
A. Cash Flow from Operating Activities						
Net Profit before Tax and Extraordinary items	2,272.77	2,861.13	3,376.25	5,342.44	6,615.71	7,766.03
Add - Adjustments for						
1. Preliminary Expenses Written Off	0.40	0.40	0.40	-	-	-
2. Loss on Sale of Assets for the Earlier Years	-	0.08	0.04	0.07	0.34	0.01
3. Profit on Sale of Fixed Assets	-	-	-	(0.07)	-	-
4. Depreciation Last Year Written Back	-	-	(0.07)	-	-	-
5. Depreciation (including prior period)	2.05	2.80	10.326	404.77	407.88	414.37
Operating Profit before Working Capital Changes	2,275.22	2,864.40	3,386.95	5,747.22	7,023.93	8,180.41
Increase/Decrease						
1. Loans (given)				(16,314.14)	(20,498.94)	(24,668.82)
2. Other Current Assets				(453.06)	222.41	34.14
3. Loans and Advances				(40.45)	12.84	(62.28)
4. Current Liabilities				110.78	260.29	369.53
Cash Inflow/Outflow from Operations	(2,244.70)	(3,107.74)	(6,139.60)	(10,949.66)	(12,979.47)	(16,147.02)
1. Advance Income Tax Paid	(537.00)	(968.29)	(998.09)	(389.10)	(1,218.80)	(1,450.96)
2. Income Tax Refund	-	48.24	9.85	-	444.72	0.11
Total	(2,781.70)	(4,027.79)	(7,127.84)	(11,338.76)	(13,753.56)	(17,597.88)
B. Cash Flow from Investing Activities						
1. Sale of Fixed Assets	0.01	0.28	0.15	0.30	0.04	0.01
2. Works-in-Progress-Purchase of Equipment on Lease to SEBs	-	(2,037.97)	-	(32.19)	-	-
3. Purchase of Fixed Assets	(1.58)	(36.21)	(12.36)	(2.90)	(6.00)	(15.50)
4. Plant and Machinery (after deducting works-in-progress leased asset)	-	-	(762.03)	(266.11)	(212.55)	(122.88)
5. Equity Investment in Power Trading Corporation	-	-	-	-	-	(15.00)
Net Cash Used in Investing Activities	(1.57)	(2,073.90)	(774.24)	(300.89)	(218.52)	(153.37)
C. Cash Flow from Financial Activities						
1. Issue of Bonds	-	910.36	4,592.24	1,797.41	4,626.50	6,076.00
2. Raising of Term Loans from Banks	-	-	-	900.00	6,100.00	7,250.00
3. Redemption of Bonds	-	-	-	(998.07)	(8,904.71)	(1,078.83)
4. Increase in Government and Foreign Currency Loans (raised)	1,948.99	2,938.17	7,338.96	7,627.36	7,617.69	4,692.21
5. Interest subsidy received from Government	-	-	-	1,941.63	3,116.96	2,264.29
6. Bonds bought back	(0.13)	(0.22)	(0.45)	0.73	0.04	-
7. Repayment of Public Deposit	(93.58)	(28.70)	(1.27)	(1.85)	(0.02)	-
8. Final Dividend Paid	(100.00)	(300.00)	(400.00)	(480.00)	(1,001.00)	(1,198.80)
9. Interim Dividend and Dividend Tax Paid	-	-	-	(165.00)	-	-
Net Cash Inflow from Financing Activities	1,755.28	3,519.61	11,529.48	10,622.21	11,555.45	18,004.87
Net Increase/Decrease in Cash and Cash Equivalents	(1,027.99)	(2,582.08)	3,627.40	(1,017.43)	(2,416.62)	253.63
Cash and Cash Equivalents as at Beginning of FY	5,999.14	4,971.15	2,389.07	6,148.27	5,130.84	2,714.22
Cash and Cash Equivalents as at End of FY	4,971.15	2,389.07	6,016.47	5,130.84	2,714.22	2,967.85
Net Increase/Decrease in Cash and Cash Equivalents	(1,027.99)	(2,582.08)	3,627.40	(1,017.43)	(2,416.62)	253.63

Source: Power Finance Corporation annual reports.

PORTFOLIO QUALITY ANALYSIS

Table A14.1: Portfolio Quality as per Appraisal Amount as Percent of Total Portfolio

Performance Category	Report for the Quarter Ending				
	31/Mar/94	31/Mar/95	31/Mar/96	31/Mar/97	31/Mar/98
Normal Risk Assets - 1A	49.14	15.66	20.85	12.58	17.17
Normal Risk Assets - 1B	-	-	-	-	-
Substandard Assets - 2A	-	-	-	-	-
Substandard Assets - 2B	17.16	55.81	41.88	83.86	78.68
Doubtful Assets - 3	33.70	22.94	12.87	-	4.04
Loss Assets - 4	-	5.59	24.40	3.56	0.11
Total	100.00	100.00	100.00	100.00	100.00

- = nil

Table A14.2: Definition of Performance Criteria

Criterion	Normal Risk Assets		Substandard Assets		Doubtful Assets 3	Loss Assets 4
	1A	1B	2A	2B		
Repayment on due date	Yes	Yes	Yes	Yes	No	No
Credit rating	A/B	A/B	C	C		
Security in force?	Yes	Yes	Yes	Yes	a	b
Annual accounts submitted?	Yes	No	Yes	No		
Loans rescheduled?	No	Yes	No	Yes		

^a If the guarantee has been invoked or lawsuit filed, the loan should be classified as doubtful asset.

^b If the payment/realization is delayed beyond 60 days after invoking the guarantee or beyond six months in case of decreed lawsuit, the loan should be classified as a loss asset.

Source: Power Finance Corporation.

**Table A14.3: Portfolio Quality as per Reserve Bank of India Guidelines
(Amount as Percent of Total Portfolio)**

Performance Category	Report for the Quarter Ending	
	31/Mar/99	31/Mar/2000
Standard Assets	97.01	96.29
Sub-Standard Assets	2.98	3.71
Doubtful Assets	0.01	-
Loss Assets	-	-
Total	100.00	100.00

- = nil, RBI = Reserve Bank of India.

Note: As per RBI clarification to PFC, PFC has no nonperforming assets. However, the asset classification above is made based on the norms applicable to banks and financial intermediaries. Further, on 13 January 2000, RBI exempted all government companies from all the nonbank financial company directions and prudential norms.

Source: Power Finance Corporation.

RATIO ANALYSIS
(in percentage)

Item	31/Mar/94	31/Mar/95	31/Mar/96	31/Mar/97	31/Mar/98	31/Mar/99	31/Mar/2000
Liquidity Ratio (current ratio)		2.34	1.92	2.93	2.88	1.28	1.19
Debt-Equity Ratio (long-term debt to equity)	1.57	1.56	1.63	2.06	2.13	2.16	2.38
Profitability Ratios							
Profit Before Tax to Capital Employed	5.85	5.48	6.25	5.82	8.05	7.68	7.29
Profit Before Tax to Net Worth	14.67	13.65	15.71	16.06	23.44	23.66	23.85
Profit Before Tax to Sales	49.74	49.04	51.86	44.5	50.59	47.37	48.16
Profit After Tax to Equity	15.42	16.26	20.49	23.29	51.21	52.54	60.41
Earnings per share (Rs)	154.2	162.64	204.85	232.86	512.09	525.36	604.08

Source: Power Finance Corporation annual reports.

STATUS OF COMPLIANCE WITH MAJOR LOAN COVENANTS

Covenant	Reference in Loan Documents	Remarks
1. PFC must complete applications of all subloans under the Project by July 1994.	PA, Sec. 2.02 (d)	Delayed compliance
2. PFC will carry out the Project with due diligence and efficiency and in conformity with the Operational Policy Statement and sound banking, administrative, financial, engineering, environmental, and business practices.	PA, Sec. 3.01 (a)	Part complied with
3. PFC will at all times make adequate provision to protect itself against any loss resulting from changes in the rate of exchange between rupees and the currency or currencies in which PFC's outstanding money obligations will have to be met.	PA, Sec. 3.02	Complied with
4. PFC will ensure that all local currency funds and other resources required by Qualified Enterprises for the carrying out of their respective Qualified Projects will be available to such Qualified Enterprises promptly as needed.	PA, Sec. 3.03	Complied with
5. PFC will not make a Subloan to any Qualified Enterprise unless such Qualified Enterprise has at its disposal, or has made appropriate arrangements to obtain as and when required, all local currency funds, including adequate working capital, and other resources required by such Qualified Enterprise for carrying out its Qualified Project in respect of which the Subloan is to be made.	PA, Sec. 3.04	Complied with
6. PFC will maintain records and accounts adequate to record the progress of the Project and of each Qualified Project (including the cost thereof) and to reflect, in accordance with consistently maintained sound accounting principles, the operations and financial condition of PFC.	PA, Sec. 3.05	Complied with
7. ADB and PFC will cooperate fully to ensure that the purposes of the Loan will be accomplished.	PA, Sec. 3.06 (a)	Complied with

Covenant	Reference in Loan Documents	Remarks
8. PFC will promptly inform ADB of any condition that interferes with, or threatens to interfere with, the progress of the Project, the performance of its obligations under this Project Agreement or the Subsidiary Loan Agreement, or the accomplishment of the purposes of the Loan.	PA, Sec. 3.06 (b)	Complied with
9. ADB and PFC will from time to time, at the request of either party, exchange views through their representatives with regard to any matters relating to the project, the Loan, and PFC's operations and policies.	PA, Sec. 3.06 (c)	Complied with
10. PFC will furnish to ADB all such reports and information as ADB will reasonably request concerning (i) the Loan and the expenditure of the proceeds thereof; (ii) the Project; (iii) the Qualified enterprises, the Qualified Projects and the Subloans; (iv) the operations and financial condition of PFC; and (v) any other matters relating to the purposes of the Loan.	PA, Sec. 3.07 (a)	Complied with
11. Without limiting the generality of the foregoing, PFC will furnish to ADB quarterly reports on the execution of the Project and on the operation and management of PFC. Such reports will be submitted in such form and in such detail and within such a period as ADB will reasonably request, and will indicate, among other things, progress made and problems encountered during the quarter under review, steps taken or proposed to be taken to remedy these problems, and proposed program of activities and expected progress during the following quarter.	PA, Sec. 3.07 (b)	Complied with
12. Promptly after the closing date for withdrawals from the Loan Account, but in any event not later than six (6) months after the said closing date or such later date as ADB may agree to for this purpose, PFC will prepare and furnish to ADB a report, in such form and in such detail as ADB will reasonably request, on the utilization of the Loan, the execution of the Qualified Projects, their costs, the performance by PFC of its obligations under this Project Agreement, and the accomplishment of the purposes of the Loan.	PA, Sec. 3.07 (c)	Delayed compliance

Covenant	Reference in Loan Documents	Remarks
13. PFC will have its accounts and financial statements (balance sheet, statement of income and expenses, and related statements) audited annually, in accordance with sound auditing standards, by independent auditors acceptable to ADB, and will, promptly after their preparation but in any event not later than seven (7) months after the close of the fiscal year to which they relate, furnish to ADB (i) certified copies of such audited accounts and financial statements, and (ii) the report of the auditors relating thereto, all in the English language.	PA, Sec. 3.08 (a)	Complied with
14. In addition to the audited financial statements referred to in paragraph (a) of this Section, PFC will furnish to ADB (i) unaudited accounts and the related financial statements for each year not later than three (3) months after the close of the fiscal year to which they relate, and (ii) a projection of PFC's financial performance (including income statements, balance sheets, and cash flow statements) for each of its five-year plans, midterm reviews, if any, and annual plans.	PA, Sec. 3.08 (b)	Complied with
15. PFC will enable ADB, upon ADB's request, to discuss PFC's financial statements and its financial affairs from time to time with PFC's auditors, and will authorize and require any representative of such auditors to participate in any such discussions requested by ADB, provided that any such discussion will be conducted only in the presence of an authorized officer of PFC unless PFC otherwise agrees.	PA, Sec. 3.08 (c)	Complied with
16. PFC will enable ADB's representatives to inspect any Qualified Project, the goods financed out of the proceeds of the Loan, and any relevant records and documents.	PA, Sec. 3.09	Complied with
17. PFC will, promptly as required, take all action within its powers to maintain its corporate existence, to carry on its operations, and to acquire, maintain and renew all rights, properties, powers, privileges and franchises necessary in carrying out the Project or in conducting its business.	PA, Sec. 3.10 (a)	Complied with

Covenant	Reference in Loan Documents	Remarks
18. PFC will at all times conduct its business in accordance with sound banking, administrative, financial, environmental, and business practices in conformity with the Operational Policy Statement, and under the supervision of competent and experienced management and personnel.	PA, Sec. 3.10 (b)	Partly complied with
19. Except as ADB may otherwise agree, PFC will not sell, lease, transfer, or otherwise dispose of any of its assets, or acquire additional assets, except in the ordinary course of its business.	PA, Sec. 3.10 (c)	Complied with
20. Except as ADB may otherwise agree, PFC will not incur any debt, if after such debt is incurred the ratio of debt to equity will be greater than 6:1.	PA, Sec. 3.11 (a)	Complied with
21. Except as ADB may otherwise agree, PFC will not incur any debt, unless the net revenues of PFC for the fiscal year immediately preceding the date of such incurrence or for a later 12-month period ending prior to the date of such incurrence, whichever is the greater, will be at least 1.2 times the estimated maximum debt service requirements of PFC for any succeeding fiscal year on all debt of PFC, including the debt to be incurred.	PA, Sec. 3.12 (a)	Complied with
22. Except as ADB may otherwise agree, PFC will earn (i) for its fiscal year ending on 31 March 1993, an annual pretax return of not less than 12 percent of the beginning value of its equity; (ii) for its fiscal year ending on 31 March 1994, an annual pretax return of not less than 13 percent of the beginning value of its equity; and (iii) for each of its fiscal years after its fiscal year ending on 31 March 1995, an annual pretax return of not less than 15 percent of the beginning value of its equity.	PA, Sec. 3.13 (a)	Complied with
23. Before 31 December in each of its fiscal year, PFC will, on the basis of forecasts prepared by PFC and satisfactory to ADB, review whether it would meet the requirements set forth in paragraph (a) in respect of such year and the next following fiscal year, and will furnish to ADB the results of such review upon its completion.	PA, Sec. 3.13 (b)	Complied with

Covenant	Reference in Loan Documents	Remarks
24. Except as ADB may otherwise agree, PFC will maintain liquid assets in an amount equal to not less than its projected disbursements for the succeeding three (3) months.	PA, Sec. 3.14	Complied with
25. Except as ADB may otherwise agree, PFC will duly perform all its obligations under the Subsidiary Loan Agreement and will not take, or concur in, any action which would have the effect of assigning, amending, abrogating, or waiving any rights or obligations of the parties under the Subsidiary Loan Agreement.	PA, Sec. 3.16	Complied with
26. PFC's Environmental Monitoring Unit will be responsible for undertaking environmental impact assessment of all projects financed by PFC in accordance with the applicable laws and regulations.	PA, Sch. para. 10	Complied with
27. The Borrower will cause PFC to carry out the Project with due diligence and efficiency and in conformity with sound banking, administrative, financial, engineering, environmental, and business practices.	LA, Sec. 4.01 (a)	Complied with
28. The Borrower will furnish, or cause to be furnished, to ADB all such reports and information as ADB will reasonably request concerning (i) the Loan, and the expenditure of the proceeds and maintenance of the service thereof; (ii) the Project; (iii) the Qualified Enterprises, the Qualified Projects and the Subloans; (iv) the operations and financial condition of PFC; (v) financial and economic conditions in the territory of the Borrower and the international balance-of-payments position of the Borrower; and (vi) any other matters relating to the purposes of the Loan.	LA, Sec. 4.02	Complied with
29. The Borrower will enable ADB's representatives to inspect any Qualified Project, the goods financed out of the proceeds of the Loan, and any relevant records and documents maintained by PFC.	LA, Sec. 4.03	Complied with
30. The Borrower will exercise its rights under the Subsidiary Loan Agreement in such a manner as to protect the interests of the Borrower and ADB and to accomplish the purposes of the Loan.	LA, Sec. 4.05	Complied with

Covenant	Reference in Loan Documents	Remarks
31. It is the mutual intention of the Borrower and ADB that no other external debt owed a creditor other than ADB will have any priority over the Loan by way of a lien on the assets of the Borrower. To that end, the Borrower undertakes (i) that, except as ADB may otherwise agree, if any lien will be created on any assets of the Borrower as security for any external debt, such lien will <u>ipso facto</u> equally and ratably secure the payment of the principal of, and interest and other charges on, the Loan; and (ii) that the Borrower, in creating or permitting the creation of any such lien, will make express provision to that effect.	LA, Sec. 4.06 (a)	Complied with
32. The terms "assets of the Borrower" as used in paragraph (a) of this Section includes assets of any political subdivision or any agency of the Borrower and assets of any agency of any such political subdivision, including the Reserve Bank of India and any other institution performing the functions of a central bank for the Borrower.	LA, Sec. 4.06 (c)	Complied with
33. The Borrower will promptly take all action, including the provision of funds, facilities, services and other resources, which will be necessary on its part to enable PFC to perform its obligations under the Project Agreement, and will not take or permit any action that will interfere with the performance of such obligations.	LA, Sec. 4.04	Complied with
34. The Borrower will intensify its efforts toward improved cost recovery and tariff rationalization in the power sector, in accordance with its overall energy policy, and will actively use PFC for operational and financial reform through appropriate lending conditions.	LA, Sch. 4	Complied with

COMPLIANCE WITH OPERATIONAL POLICY STATEMENTS

Requirement of Operational Policy Statements	Status of Compliance
<u>Additionality</u>	
Funds provided by Power Finance Corporation (PFC) to power sector entities are in addition to the funds assigned to them through the Plan. The borrowers cannot substitute PFC's funds for earmarked allocations by the Indian Planning Commission.	Complied with
PFC's Funds Not To Be Preallocated	
PFC's funds are not allocated to the states. PFC's financing decisions are based solely on the merits of individual projects.	Complied with
Eligibility Criteria	
PFC will assist only those state electricity boards (SEBs) and state generating companies (SGCs) that agree to implement operational and financial action plans (OFAPs) satisfactory to PFC.	Since 30 June 1991, new loans are granted only when an OFAP is in place.
PFC will lend only to projects that meet the following criteria: (i) are economically justified, with a rate of return of not less than 12%; (ii) are technically sound; (iii) least –cost technical solutions; (iv) are compatible with existing expansion plans; (v) solutions proposed should meet central and state government environmental impact standards; and (vi) schemes should have all clearances as required by state and central agencies.	Complied with. However, criteria for inclusion of projects/schemes in the accelerated generation and supply program, under which PFC is receiving a subsidy from the central Government and is lending at subsidized rates to the Borrower, are as follows: (i) renovation & modernization; (ii) ongoing generation projects; (iii) missing transmission links and system improvement; and (iv) grant for studies.
Schemes for environmental upgrading of power stations should meet acceptable engineering standards, and should be the most cost-effective means of mitigating environmental effects.	Complied with
Priority areas for funding are the following: (i) renovation & modernization of thermal and hydropower plants, (ii) completion of ongoing generation projects, (iii) expansion of transmission and distribution systems, and (iv) system improvement.	Complied with

Requirement of Operational Policy Statements	Status of Compliance
Repayment Guarantees and Exposure Limits	
PFC will extend financial assistance only to SEBs whose state governments have given confirmation that PFC will have priority on the SEB's surplus revenue over the loans granted by the state governments to the SEBs, in accordance with the Electricity Act.	Complied with
PFC's maximum exposure limits to be set according to both its clients' creditworthiness and the guarantees offered, according to an agreed upon matrix that determines the credit risk weights to be used in calculating the maximum levels of exposure per client as a percentage of PFC's net worth. The maximum level of exposure per client is as follows: 1990-1992, 35 percent of PFC's net worth; 1992-1993, 30 percent; 1993-1994, 25 percent; 1994-1996, 20 percent; and 1996-1998, 25 percent.	Not complied with. PFC exceeded its exposure limits in the case of eight clients. As of 1998, the aggregate over-exposure to the eight borrowers corresponded to Rs28.69 billion (\$722 million), with Andhra Pradesh State Electricity Board (APSEB), its largest borrower exceeding by Rs6.9 billion (\$173 million). PFC justifies this overexposure by referring to its policy of approving loans for borrowers, who have exceeded their limits, only in connection with projects whose implementation would result in an improved financial position for the borrower in question.
Nonrescheduling of Loans	
PFC's general policy is not to reschedule repayments due from its borrowers. However, the operational policy statement (OPS) allows PFC, if PFC considers it financially prudent, to provide a financial restructuring package supported by appropriate conditions.	Not complied with. As of 1998, loan repayments due from five of PFC's borrowers (APSEB, UPSEB, TVNL, BSHPCL, and WBPDC) had been rescheduled and restructured through loan consolidation and conversion into monthly instalments, and supported by escrow accounts and irrevocable payment instructions. As of 31 March 2000, UPSEB and APSEB had fully paid their outstanding accounts.
Adjustability of Lending Rates	
When PFC borrows at variable interest rates, it will include a provision in its loan documents to allow its lending rates to be adjusted both on the disbursed as well as the undisbursed portion of its loans.	Not complied with. Domestic currency lending of PFC is at a fixed rate of interest with a provision for adjusting the lending rate on undisbursed portion. However, in foreign currency loan agreements, this clause is incorporated.
Procurement and Disbursement Procedures	
Funds will be made available to the borrower only when the expenditure is made.	Complied with

APSEB = Andhra Pradesh State Electricity Board, BSHPIL = Bihar State Hydroelectric Power Corporation Limited, TVNL = Tenughat Vidyut Nigam Limited, UPSEB = Uttar Pradesh State Electricity Board, and WBPDC = West Bengal Power Development Corporation Limited.

Requirement of Operational Policy Statements	Status of Compliance
Supervision & Monitoring	
The Borrower will furnish periodic progress reports, satisfactory to PFC, in respect to implementation of the financed project(s) and the OFAP.	Complied with
In addition, PFC's supervision teams will periodically visit project sites to assess progress and to provide support to the Borrower as needed.	Complied with
PFC may suspend or cancel any part of a loan if the borrowing entity fails to perform any obligation under the legal agreement. PFC has developed a set of guidelines for application of remedies.	Complied with
Profitability Targets	
PFC will endeavor to operate as a commercial entity, earning an adequate rate of return on its capital (positive in real terms), maintaining a healthy loan portfolio, and building a strong financial base to enable it to borrow on attractive terms.	Complied with
PFC's lending rates will be positive in real terms and will reflect its borrowings and operational costs, plus a margin to ensure its financial viability. Lending documents will include a provision to ensure that lending rates are adjusted to reflect this objective.	Complied with
Capital Adequacy	
Initially, a maximum debt-to-equity ratio of 4:1 will be maintained. The appropriateness of this ratio will be periodically reviewed.	Complied with
Debt-Service Coverage Ratio	
PFC's operation will be managed so as to maintain a debt-service coverage ratio not lower than 1:2.	Complied with
Liquidity	
PFC will maintain liquid assets equal to but not less than the equivalent of the anticipated disbursements for the following three months.	Complied with
Foreign Exchange and Interest Rate Risks	
PFC will not bear the interest rate and foreign exchange risks in its operations.	In general compliance

Requirement of Operational Policy Statements	Status of Compliance
Guarantees	
PFC will be lending to SEBs and SGCs only with the backing of a guarantee provided by the state governments or commercial banks. In addition, PFC may request contingent arrangements, like escrow accounts, to be invoked in certain cases, as when the guarantees have not been honored, or the OFAPs are not being implemented to the satisfaction of PFC, or when SEBs/SGCs want to enhance their borrowing limits.	Complied with
Term Transformation	
PFC will determine the average repayment period of its loans to ensure that the average maturity of its assets does not exceed that of its liabilities.	Complied with
Guarantees Provided by PFC to SEBs and SGCs	
The provision in the preceding paragraphs relating to remedies, foreign exchange and interest rate risks, loan guarantees, etc. will equally apply to guarantees granted by PFC.	Complied with
Accounting and Audit Systems	
PFC will maintain its accounts in conformity with the requirements of the Companies Act (1956) and directives from the government. PFC's Statutory Auditor is appointed by the government on the advice of the office of the Comptroller and Auditor General, who may also carry out their own audit of PFC.	Complied with
PFC is aware of the need to develop an efficient organization staffed with competent professionals from different disciplines. To support this effort, PFC intends to maintain training programs that provide access to the latest developments in the different disciplines.	Complied with
Review of Policies	
The above set of polices and procedures will be revised from time to time to reflect the changing needs in the operations of the corporation.	Complied with