
LOAN NUMBER 7687-IN

Loan Agreement

(Coal Fired Generation Rehabilitation Project)

between

INDIA

and

INTERNATIONAL BANK FOR RECONSTRUCTION
AND DEVELOPMENT

Dated *December 17*, 2009

LOAN AGREEMENT

AGREEMENT dated December 17, 2009, between INDIA (the "Borrower") and INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (the "Bank").

Whereas the Borrower has also requested the Bank to provide additional assistance towards the financing of the project (the "Project") described in Schedule I to this Agreement, and by an agreement of even date between the Borrower and the Bank ("GEF Grant Agreement"), the Bank, acting as an implementing agency of the Global Environment Facility (the "GEF"), is agreeing to extend to the Borrower a grant in an amount equal to forty-five million four hundred thousand Dollars (\$45,400,000) (the "Grant").

Now therefore, the Borrower and the Bank hereby agree as follows:

ARTICLE I - GENERAL CONDITIONS; DEFINITIONS

- 1.01. The General Conditions (as defined in the Appendix to this Agreement) constitute an integral part of this Agreement.
- 1.02. Unless the context requires otherwise, the capitalized terms used in this Agreement have the meanings ascribed to them in the General Conditions or in the Appendix to this Agreement.

ARTICLE II - LOAN

- 2.01. The Bank agrees to lend to the Borrower, on the terms and conditions set forth or referred to in this Agreement, the amount of one hundred eighty million Dollars (\$180,000,000) ("Loan"), to assist in financing the project described in Schedule I to this Agreement.
- 2.02. The Borrower may withdraw the proceeds of the Loan in accordance with Section IV of Schedule 2 to this Agreement.
- 2.03. The Front-end Fee payable by the Borrower shall be equal to one quarter of one percent (0.25%) of the Loan amount.
- 2.04. The interest payable by the Borrower for each Interest Period shall be at a rate equal to LIBOR for the Loan Currency plus the Variable Spread; provided, that upon a Conversion of all or any portion of the principal amount of the Loan, the interest payable by the Borrower during the Conversion Period on such amount shall be determined in accordance with the relevant provisions of Article IV of the General Conditions. Notwithstanding the foregoing, if any amount of the Withdrawn Loan Balance remains unpaid when due and such non-payment

continues for a period of thirty (30) days, then the interest payable by the Borrower shall instead be calculated as provided in Section 3.02(d) of the General Conditions.

2.05. The Payment Dates are June 15 and December 15 in each year.

2.06. The principal amount of the Loan shall be repaid in accordance with the amortization schedule set forth in Schedule 3 to this Agreement.

2.07. (a) The Borrower may at any time request any of the following Conversions of the terms of the Loan in order to facilitate prudent debt management: (i) a change of the Loan Currency of all or any portion of the principal amount of the Loan, withdrawn or unwithdrawn, to an Approved Currency; (ii) a change of the interest rate basis applicable to all or any portion of the principal amount of the Loan withdrawn and outstanding from a Variable Rate to a Fixed Rate, or vice versa; and (iii) the setting of limits on the Variable Rate applicable to all or any portion of the principal amount of the Loan withdrawn and outstanding by the establishment of an Interest Rate Cap or Interest Rate Collar on the Variable Rate.

(b) Any conversion requested pursuant to paragraph (a) of this Section that is accepted by the Bank shall be considered a "Conversion", as defined in the General Conditions, and shall be effected in accordance with the provisions of Article IV of the General Conditions and of the Conversion Guidelines.

(c) Promptly following the Execution Date for an Interest Rate Cap or Interest Rate Collar for which the Borrower has requested that the premium be paid out of the proceeds of the Loan, the Bank shall, on behalf of the Borrower, withdraw from the Loan Account and pay to itself the amounts required to pay any premium payable in accordance with Section 4.05(c) of the General Conditions up to the amount allocated from time to time for the purpose in the table in Section IV of Schedule 2 to this Agreement.

ARTICLE III - PROJECT

3.01. The Borrower declares its commitment to the objectives of the Project. To this end, the Borrower shall cause the WBPDC, MSPGCL and HPGCL, through the respective Project States, to carry out their Respective Parts of Components 1 and 2 of the Project, and shall, through the CEA, carry out the Respective Parts of Component 2 of the Project, all in accordance with the provisions of Article V of the General Conditions and the respective Project Agreements.

- 3.02. Without limitation upon the provisions of Section 3.01 of this Agreement, and except as the Borrower and the Bank shall otherwise agree, the Borrower shall ensure that the Project is carried out in accordance with the provisions of Schedule 2 to this Agreement.

ARTICLE IV - EFFECTIVENESS; TERMINATION

- 4.01. The Additional Condition of Effectiveness consists of the following, namely, that all conditions precedent to the effectiveness of the GEF Grant Agreement (other than the effectiveness of the Loan Agreement) have been fulfilled.
- 4.02. The Effectiveness Deadline is the date ninety (90) days after the date of this Agreement.

ARTICLE V - REPRESENTATIVE; ADDRESSES

- 5.01. The Borrower's Representative is the Secretary, or any Additional Secretary, Joint Secretary, Director, Deputy Secretary or Under Secretary of the Department of Economic Affairs in the Ministry of Finance of the Borrower.
- 5.02. The Borrower's Address is:

Department of Economic Affairs
Ministry of Finance
New Delhi, India

Cable:

Telex:

Facsimile:

ECOFAIRS
New Delhi

953-31-66175
FINE IN

91-11-23092477

- 5.03. The Bank's Address is:

International Bank for Reconstruction and Development
1818 H Street, N.W.
Washington, D.C. 20433
United States of America

Cable address:

Telex:

Facsimile:

INTBAFRAD
Washington, D.C.

248423(MCI) or
64145(MCI)

1-202-477-6391

AGREED at New Delhi, India, as of the day and year first above written.

INDIA

By */s/ Govind Mohan*
Anup K. Rajani
Authorized Representative

INTERNATIONAL BANK FOR
RECONSTRUCTION AND DEVELOPMENT

By */s/ Giovanna Prennushi*
Authorized Representative

SCHEDULE 1

Project Description

The objective of the Project is to improve the energy efficiency of selected coal-fired power generation units through renovation and modernization and improved operations and maintenance, and a significant co-benefit of the Project is the reduction of greenhouse gas emissions per kilowatt hour of electricity generated.

The Project consists of the following parts:

Component 1. Energy Efficiency Renovation and Modernization Pilots

Renovation and modernization of 640 MW of old coal-fired power generation capacity of the Participating Utilities, specifically: (a) Unit-5, Bandel Thermal Power Plant of WBPDL (210 MW); (b) Unit-6, Koradi Thermal Power Plant of MSPGCL (210 MW); and (c) Units-3 & 4, Panipat Thermal Power Plant of the HPGCL (110 MW each), all to demonstrate energy efficient rehabilitation approaches.

Component 2. Technical Assistance

Technical assistance and support to: (a) WBPDL; (b) MSPGCL; (c) HPGCL; and (d) CEA, as appropriate, to implement energy efficiency renovation and modernization pilots under Component 1, develop a pipeline of energy efficiency renovation and modernization interventions, addressing barriers to energy efficiency renovation and modernization projects, and strengthening institutional capacities of the Participating Utilities and the CEA.

SCHEDULE 2

Project Execution

Section I. Implementation, Institutional and Other Arrangements

1. To facilitate the carrying out of the Project, the Borrower shall make a part of the proceeds of the Grant available to the CEA, and shall make a part of the proceeds of the Loan available to Project States, all on the same financial terms and conditions as apply to the Borrower under this Agreement, and shall ensure that the Project States make such funds available to the Participating Utilities on the same terms and conditions.
2. The Borrower shall cause each Project Implementing Entity to take all necessary steps to ensure that all Project activities for which it is responsible pursuant to the terms of its respective Project Agreement are implemented in accordance with the Schedule to such Project Agreement.
3. The Borrower shall ensure that the CEA shall implement the Respective Parts of Component 2 of the Project in accordance with the CEA Operational Manual and the CEA Procurement Plan, and shall not revise, amend, waive or abrogate the CEA Operational Manual or the CEA Procurement Plan without the prior consent of the Bank.
4. Within thirty (30) days of Loan Agreement effectiveness, the Ministry of Power of the Borrower and the CEA shall enter into the Grant Implementation Agreement-CEA, which shall be consistent with and reflect the terms and conditions of the Loan Agreement and GEF Grant Agreement, and shall provide, inter alia, that the proceeds of the Grant received shall be made available to the CEA on the same financial terms and conditions as apply to the Borrower. The Borrower shall exercise its rights under the Grant Implementation Agreement-CEA in such manner as to protect its interests and interests of the Bank, and to accomplish the purposes of the Loan. Except as the Bank shall otherwise agree, the Borrower shall not assign, amend, abrogate or waive the Grant Implementation Agreement-CEA or any of its provisions.
5. The Borrower shall ensure that the Project is carried out in accordance with the provisions of the Anti-Corruption Guidelines.
6. The Borrower shall protect the interests of the Borrower and the Bank to accomplish the purposes of the Loan.

Section II. Project Monitoring Reporting and Evaluation

A. Project Reports

The Borrower, through the Project Implementing Entities and the CEA, shall monitor and evaluate the progress of the Project and cause to prepare Project Reports in accordance with the provisions of Section 5.08 of the General Conditions and on the basis of indicators agreed with the Bank. Each Project Report shall cover the period of one (1) Fiscal Year quarter, and shall be furnished to the Bank not later than forty-five (45) days after the end of the period covered by such report, except that during the unit shutdown period for renovation and modernization, the reporting shall be more frequent, as may be mutually agreed upon by the Bank and the Participating Utility.

B. Financial Management, Financial Reports and Audits

1. The Borrower shall maintain a financial management system in accordance with the provisions of Section 5.09 of the General Conditions.
2. The Borrower shall have its Financial Statements audited in accordance with the provisions of Section 5.09(b) of the General Conditions. Each audit of the Financial Statements shall cover the period of one (1) Fiscal Year, commencing with the Fiscal Year in which the first withdrawal under the Project was made. The audited Financial Statements for each such period shall be furnished to the Bank not later than six (6) months after the end of such period.
3. The Borrower shall ensure that the Project Implementing Entities and the CEA shall prepare and furnish to the Bank not later than forty-five (45) days after the end of each Fiscal Year quarter, interim unaudited financial reports for their Respective Parts under the Project, covering the quarter, in form and substance satisfactory to the Bank.

Section III. Procurement

A. General

1. **Goods.** All goods required for the Project and to be financed out of the proceeds of the Loan shall be procured in accordance with the requirements set forth or referred to in Section I of the Procurement Guidelines, and with the provisions of this Section.
2. **Consultants' Services.** All consultants' services required for the Project and to be financed out of the proceeds of the Loan shall be procured in accordance with the requirements set forth or referred to in Sections I and IV of the Consultant Guidelines and with the provisions of this Section.

3. **Definitions.** The capitalized terms used below in this Section to describe particular procurement methods or methods of review by the Bank of particular contracts refer to the corresponding method described in the Procurement Guidelines, or Consultant Guidelines, as the case may be.

B. Particular Methods of Procurement of Goods

1. **International Competitive Bidding.** Except as otherwise provided in paragraph 2 below, goods shall be procured under contracts awarded on the basis of International Competitive Bidding.
2. **Other Methods of Procurement of Goods.** The following table specifies the methods of procurement, other than International Competitive Bidding, which may be used for goods. The Procurement Plan shall specify the circumstances under which such methods may be used.

Procurement Method
(a) National Competitive Bidding, and the additional provisions agreed between the Borrower and the Bank
(b) Direct Contracting

C. Particular Methods of Procurement of Consultants' Services

1. **Quality- and Cost-based Selection.** Except as otherwise provided in paragraph 2 below, consultants' services shall be procured under contracts awarded on the basis of Quality- and Cost-based Selection.
2. **Other Methods of Procurement of Consultants' Services.** The following table specifies the methods of procurement, other than Quality- and Cost-based Selection, which may be used for consultants' services. The Procurement Plan shall specify the circumstances under which such methods may be used.

Procurement Method
(a) Quality-Based Selection
(b) Selection under a Fixed Budget
(c) Selection Based on the Consultants' Qualifications
(d) Single-Source Selection
(e) Procedures set forth in paragraphs 5.2 and 5.3 of the Consultant Guidelines for the Selection of Individual Consultants
(f) Sole Source Procedures for the Selection of Individual Consultants

D. Review by the Bank of Procurement Decisions

The Procurement Plan shall set forth those contracts which shall be subject to the Bank's Prior Review. All other contracts shall be subject to Post Review by the Bank.

Section IV. Withdrawal of Loan Proceeds

A. General

1. The Borrower may withdraw the proceeds of the Loan in accordance with the provisions of Article II of the General Conditions, this Section, and such additional instructions as the Bank shall specify by notice to the Borrower (including the "World Bank Disbursement Guidelines for Projects" dated May 2006, as revised from time to time by the Bank and as made applicable to this Agreement pursuant to such instructions), to finance Eligible Expenditures as set forth in the table in paragraph 2 below.
2. The following table specifies the categories of Eligible Expenditures that may be financed out of the proceeds of the Loan ("Category"), the allocation of the amounts of the Loan to each Category, and the percentage of expenditures to be financed for Eligible Expenditures in each Category.

Category	Amount of the Loan Allocated (expressed in USD)	Amount of the Grant Allocated (expressed in USD)	Percentage of Expenditures to be financed (inclusive of Taxes)
(1) Goods:			
(a) for Component 1(a) of the Project	58,852,500	12,450,000	
(b) for Component 1(b) of the Project	58,852,500	12,450,000	74%
(b) for Component 1(c) of the Project	61,845,000	13,000,000	
(2) Consultants' Services:			
(a) for Component 2(a) of the Project		1,300,000	

(b) for Component 2(b) of the Project		3,300,000	
(c) for Component 2(c) of the Project		1,800,000	100%
(d) for Component 2(d) of the Project		1,100,000	
(3) Front-end Fee	450,000		Amount payable pursuant to Section 2.03 of this Agreement in accordance with Section 2.07(b) of the General Conditions
(4) Premia for Interest Rate Cap and Interest Rate Collar	-0-		Amount payable pursuant to Section 2.07(c) of this Agreement in accordance with Section 4.05(c) of the General Conditions
TOTAL AMOUNT	180,000,000	45,400,000	

B. Withdrawal Conditions; Withdrawal Period

1. Notwithstanding the provisions of Part A of this Section no withdrawal shall be made for payments made prior to the date of this Agreement, except that withdrawals up to an aggregate amount not to exceed \$18,000,000 equivalent (under the Loan) and up to an aggregate amount not to exceed \$4,540,000 equivalent (under the Grant) may be made for payments prior to this date but on or after February 1, 2009, for Eligible Expenditures under Categories (1) and (2).
2. The Closing Date is November 30, 2014.

SCHEDULE 3

Amortization Schedule

1. The following table sets forth the Principal Payment Dates of the Loan and the percentage of the total principal amount of the Loan payable on each Principal Payment Date ("Installment Share"). If the proceeds of the Loan have been fully withdrawn as of the first Principal Payment Date, the principal amount of the Loan repayable by the Borrower on each Principal Payment Date shall be determined by the Bank by multiplying: (a) Withdrawn Loan Balance as of the first Principal Payment Date; by (b) the Installment Share for each Principal Payment Date, such repayable amount to be adjusted, as necessary, to deduct any amounts referred to in paragraph 4 of this Schedule, to which a Currency Conversion applies.

Principal Payment Date	Installment Share (Expressed as a Percentage)
On each June 15 and December 15 Beginning December 15, 2014 through June 15, 2039	2%

2. If the proceeds of the Loan have not been fully withdrawn as of the first Principal Payment Date, the principal amount of the Loan repayable by the Borrower on each Principal Payment Date shall be determined as follows:
- (a) To the extent that any proceeds of the Loan have been withdrawn as of the first Principal Payment Date, the Borrower shall repay the Withdrawn Loan Balance as of such date in accordance with paragraph 1 of this Schedule.
- (b) Any amount withdrawn after the first Principal Payment Date shall be repaid on each Principal Payment Date falling after the date of such withdrawal in amounts determined by the Bank by multiplying the amount of each such withdrawal by a fraction, the numerator of which is the original Installment Share specified in the table in paragraph 1 of this Schedule for said Principal Payment Date ("Original Installment Share") and the denominator of which is the sum of all remaining Original Installment Shares for Principal Payment Dates falling on or after such date, such amounts repayable to be adjusted, as necessary, to deduct any amounts referred to in paragraph 4 of this Schedule, to which a Currency Conversion applies.
3. (a) Amounts of the Loan withdrawn within two (2) calendar months prior to any Principal Payment Date shall, for the purposes solely of calculating

the principal amounts payable on any Principal Payment Date, be treated as withdrawn and outstanding on the second Principal Payment Date following the date of withdrawal and shall be repayable on each Principal Payment Date commencing with the second Principal Payment Date following the date of withdrawal.

- (b) Notwithstanding the provisions of sub-paragraph (a) of this paragraph, if at any time the Bank adopts a due date billing system under which invoices are issued on or after the respective Principal Payment Date, the provisions of such sub-paragraph shall no longer apply to any withdrawals made after the adoption of such billing system.
- 4. Notwithstanding the provisions of paragraphs 1 and 2 of this Schedule, upon a Currency Conversion of all or any portion of the Withdrawn Loan Balance to an Approved Currency, the amount so converted in the Approved Currency that is repayable on any Principal Payment Date occurring during the Conversion Period, shall be determined by the Bank by multiplying such amount in its currency of denomination immediately prior to the Conversion by either: (i) the exchange rate that reflects the amounts of principal in the Approved Currency payable by the Bank under the Currency Hedge Transaction relating to the Conversion; or (ii) if the Bank so determines in accordance with the Conversion Guidelines, the exchange rate component of the Screen Rate.
- 5. If the Withdrawn Loan Balance is denominated in more than one Loan Currency, the provisions of this Schedule shall apply separately to the amount denominated in each Loan Currency, so as to produce a separate amortization schedule for each such amount.

APPENDIX

Definitions

1. "Anti-Corruption Guidelines" means the "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006.
2. "Category" means a category set forth in the table in Section IV of Schedule 2 to this Agreement.
3. "CEA" means the Central Electricity Authority of the Borrower, or any successor or successors thereto.
4. "CEA Operational Manual" means the manual approved by the CEA on February 5, 2009, satisfactory to the Bank, which sets out the operational rules and procedures governing CEA implementation of its Respective Part of Component 2 of the Project, as such manual may be amended from time to time with the prior consent of the Bank.
5. "Consultant Guidelines" means the "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" published by the Bank in May 2004 and revised in October 2006.
6. "CGFAAP" means the plan adopted or to be adopted by each Participating Utility, satisfactory to the Bank, which sets out corporate governance and financial accountability actions to be undertaken by the Participating Utility, as such plan may be amended from time to time with the prior consent of the Bank.
7. "CSRP" means the corporate social responsibility policy adopted or to be adopted by each Participating Utility, satisfactory to the Bank, which sets out corporate social actions to be undertaken by the Participating Utility for the benefit of the community residing in surrounding habitations, as such policy may be amended from time to time with the prior consent of the Bank.
8. "DPR" means the detailed project report prepared or to be prepared by each Participating Utility, satisfactory to the Bank, which sets out, based on an independent energy audit, options for renovation and modernization, financial, economic and risk analysis of such option, recommendations for a preferred option, and technical specifications for such a preferred option, as such report may be amended from time to time with the prior consent of the Bank.
9. "General Conditions" means the "International Bank for Reconstruction and Development General Conditions for Loans", dated July 1, 2005 (as amended through February 12, 2008).