

# Facility Administration Manual

Project Number: 45224  
August 2013

India: Rajasthan Renewable Energy Transmission  
Investment Program

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## **Facility Administration Manual Purpose and Process**

The facility administration manual (FAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures.

The executing and implementing agencies are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by executing and implementing agencies of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Loan Negotiations the borrower and ADB have agreed to the FAM and ensured consistency with the Framework Financing Agreement. Such agreement has been reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the FAM and the Framework Financing Agreement, the provisions of the Framework Financing Agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the FAM or subsequent Project Administrative Manuals (PAMs), if applicable.

## Abbreviations

ADB	=	Asian Development Bank
AFS	=	audited financial statements
CAG	=	Comptroller and Auditor General of India
CSP	=	concentrated solar power
CTF	=	Clean Technology Fund
DEA	=	Department of Economic Affairs, Ministry of Finance, Government of India
DMF	=	design and monitoring framework
EA	=	executing agency
EARF	=	environmental assessment and review framework
EIA	=	environmental impact assessment
EMP	=	environmental management plan
FAM	=	facility administration manual
FIRR	=	financial internal rate of return
GOI	=	Government of India
GOR	=	Government of Rajasthan
IARS	=	Imprest Account Reconciliation Statement
ICB	=	international competitive bidding
IEE	=	initial environmental examination
IPDP	=	Indigenous Peoples Development Plan
IPPF	=	indigenous people planning framework
LIBOR	=	London interbank offered rate
NCB	=	national competitive bidding
NCEF	=	National Clean Energy Fund
OCR	=	ordinary capital resources
PAI	=	project administration instructions
PAM	=	project administration manual
PCSS	=	Procurement Contract Summary Sheet
PFR	=	periodic financing request
PMU	=	project management unit
PO	=	purchase order
RF	=	resettlement framework
ROE	=	return on equity
RREC	=	Rajasthan Renewable Energy Corporation Limited
RRP	=	report and recommendation of the President to the Board
RRVNL	=	Rajasthan Rajya Vidyut Prasaran Nigam Ltd.
SLEC	=	State Level Empowered Committee
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SPRSS	=	summary poverty reduction and social strategy
WACC	=	weighted average cost of capital

## I. FACILITY DESCRIPTION

1. Government of Rajasthan (GOR) will target nearly 8,000 MW of installed capacity of solar photovoltaic (PV), concentrated solar power (CSP) and wind projects, including the Bhadla solar park, by 2018. The Rajasthan Renewable Energy Transmission Investment Program (RRETIP) will form a part of the overall scheme for transmission development in Rajasthan to evacuate this power.

2. Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRVPNL), the public owned transmission company in Rajasthan State of India is in charge of the development of transmission infrastructure under the RRETIP. Transmission of renewable energy faces several challenges including cost recovery for long distance transmission lines with low load factors, reliability issues associated with transmitting a large quantum of intermittent power and the necessity for coordination with development of renewable generation. Concessional financing is expected to support the Investment Program that is part of Government of India's Clean Technology Fund (CTF) Investment Plan to support environmentally sustainable growth. Since the Investment Program is to be implemented in phases – linked to the growth in renewable energy capacity, an MFF modality is proposed for the Investment Program. The MFF has been chosen as the most appropriate financing modality on the ground of efficiency, continuity in the investments etc. An MFF approach would also provide flexibility to incorporate OCR and CTF co-financing in project components.

3. **Impact and Outcome.** The Investment Program will accelerate the development of renewable energy sources in Rajasthan and India. The outcome would be a cleaner electricity mix with more efficient and effective generation and transmission system in Rajasthan.

4. **Outputs.** The above mentioned impact and outcome would be achieved through the following outputs under the MFF;

- (i) Physical outputs under the RRETIP include the construction of three grid substations (400/220/132 kilo Volt) and associated facilities at Bhadla, Ramgarh and Jaisalmer; the construction of nine grid substations (220/132 kV) and associated facilities at Bap, Kanesar, Chhatrail, Pokaran, Kolayat, Ramdev Nagar, Badisid, Aau and Bajju; the augmentation of four 400 kilo Volt (kV) grid substations at Akal, Jodhpur, Barmer, Bikaner; and the construction of nearly 1852 km. of 400 kV, 220 kV and 132 kV of double circuit transmission lines and associated facilities in Western Rajasthan.
- (ii) Non-physical outputs include improving institutional capacity and effectiveness, including planning, procurement, supervision, implementation, monitoring and reporting; project management, community development policy for renewable energy financial management and improved monitoring and reporting.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

<b>Activities</b>	<b>2012 Jan- Dec</b>	<b>2013 Jul- Sep</b>	<b>2014 Jan- Mar</b>	<b>Responsible</b>
Establish project implementation arrangements	X			RRVPNL
Commencement of Advance contracting actions	X			ADB, RRVPNL
ADB Board approval (3 <sup>rd</sup> Quarter 2013)		X		ADB
Tranche 1 Loan signing			X	ADB, GOI
Government legal opinion provided			X	GOR, RRVPNL, GOI
Loan effectiveness			X	ADB

## B. Overall Project Implementation Plan

Please refer relevant appendix for information on each project.

### III. PROJECT MANAGEMENT ARRANGEMENTS

#### A. Facility Implementation Organizations – Roles and Responsibilities

<b>Program/Subproject implementation organizations</b>	<b>Management Roles and Responsibilities</b>
<u>A. Executing agency</u>	
<ul style="list-style-type: none"><li>• Government of Rajasthan (Department of Energy)</li></ul>	<ul style="list-style-type: none"><li>➤ Overall responsibility for oversight including coordination and monitoring of the Investment Program and subprojects and other components in cooperation with the Executing Agency. Rajasthan Renewable Energy Corporation (RREC), under the Department of Energy, Government of Rajasthan is the nodal agency for coordination of renewable energy development in Rajasthan.</li></ul>
<ul style="list-style-type: none"><li>• Rajasthan Rajya Vidyut Prasaran Nigam Ltd. (RRVPNL)</li></ul>	<ul style="list-style-type: none"><li>➤ Overall responsibility for execution of the Investment Program and subprojects.</li><li>➤ Responsibility for the day-to-day coordination, implementation, and administration of the investment subprojects and capacity development components.</li><li>➤ The Project Management Unit (PMU) within RRVPNL's head office will cover the overall MFF and perform financial reporting management functions.</li><li>➤ The PMU will include field personnel, performing project site-specific monitoring, construction supervision, and reporting.</li></ul>
<u>B. ADB</u>	<ul style="list-style-type: none"><li>➤ Support implementation including compliance by the executing and implementing agency of its obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.</li><li>➤ Coordinate subproject-level due diligence and approval of subsequent loan tranches</li></ul>

## B. Key Persons Involved in Implementation

### Executing Agency / Implementing Agency

Government of Rajasthan                      S. Agarwal  
Position: Principal Secretary, Energy, Government of Rajasthan  
Telephone No.: 91-141-2227408  
Fax No.: 91-141-2227699  
Email address: secretaryenergy@gmail.com  
Office Address: Secretariat, Jaipur, Rajasthan, India - 302005

Rajasthan Rajya Vidyut Prasaran Nigam Ltd. (RRVPNL)                      L. N. Nimawat:  
Position: Chief Engineer, RRVPNL  
Telephone No.: 91-141-2740623  
Fax No.: 91-141-2740794  
Email address: ce\_ppm@rvpn.co.in  
Office Address: Vidyut Bhawan, Jyoti Nagar, Janpath, Jaipur, Rajasthan – 302005, India

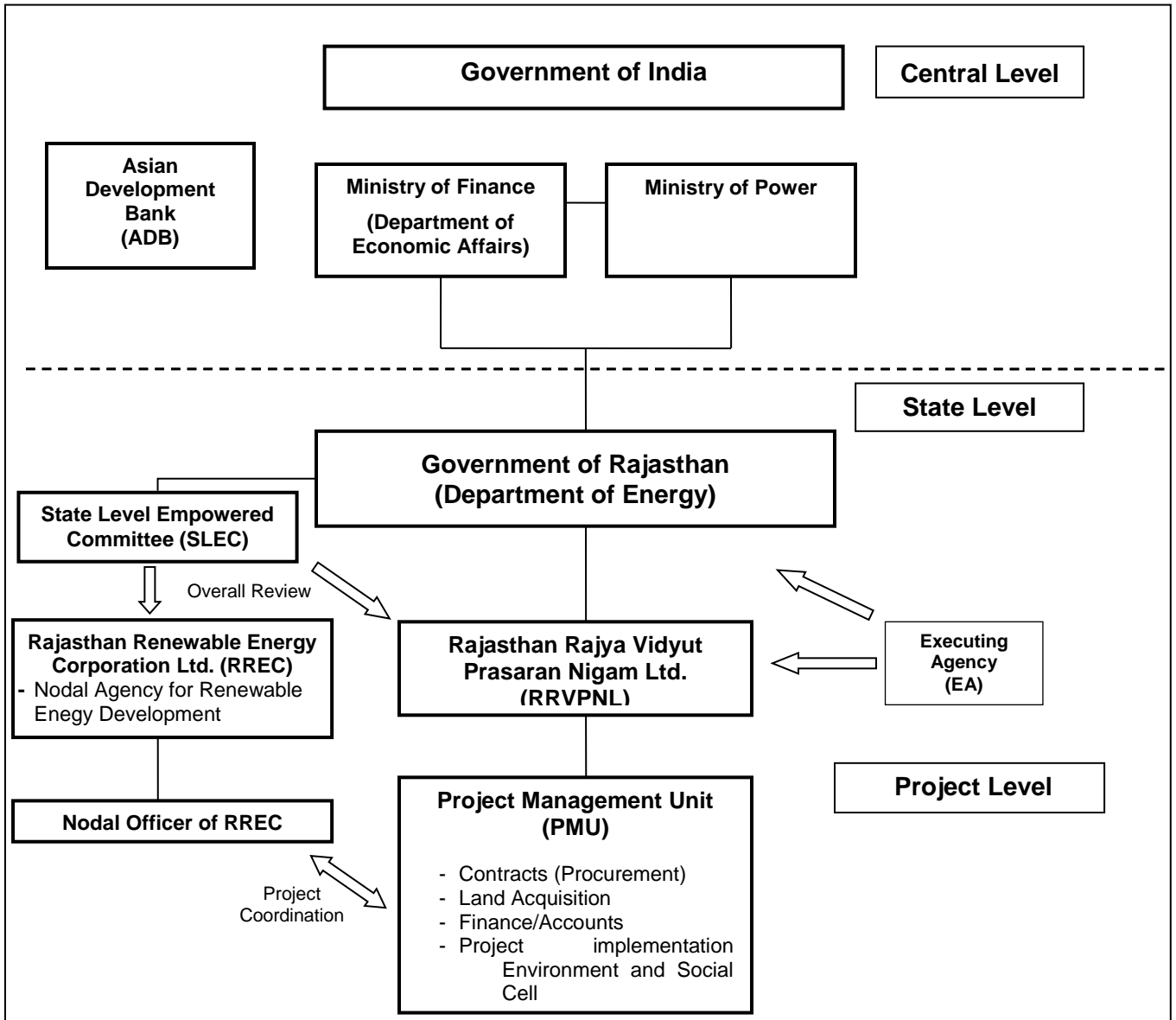
### ADB

South Asia Energy Division                      Staff Name: Yongping Zhai  
Position: Director  
6 ADB Avenue Mandaluyong City, Manila, Philippines 1550  
Telephone No.: +63 2 632-6301  
Email address: [yzhai@adb.org](mailto:yzhai@adb.org)

Mission Leader                                      Staff Name: Len George  
Position: Energy Specialist  
6 ADB Avenue Mandaluyong City, Manila, Philippines 1550  
Telephone No.: +63 2 632-6633  
Email address: [lgeorge@adb.org](mailto:lgeorge@adb.org)



**C. Program Organization Structure**



#### IV. COSTS AND FINANCING

##### A. Facility Cost Estimates

5. The Government has requested up to \$500 million from ADB to help finance the investments for the Rajasthan Renewable Energy Transmission Investment Program. ADB has agreed to lend \$300 million from its ordinary capital resources (OCR), and \$200 million cofinancing from the ADB Clean Technology Fund (ADB CTF). The MFF is expected to have three tranches subject to the Government's submission of periodic financing requests (PFRs); execution of loan and project agreements; and fulfillment of terms, conditions and undertakings set forth in the framework financing agreement. The indicative investment plan for the MFF includes three tranches, with the first tranche amount of \$150 million and two more tranches totaling \$350 million subsequently.

6. For the ADB financed portion, the loan under Tranche 1 will have a 25-year term including a grace period of 5 years, straight line repayment method, and annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR), a commitment charge of 0.15% per year and such other terms and conditions as set forth in the draft loan and project agreements. Based on these loan terms and repayment method, the average loan maturity is 15.25 years and the maturity premium payable to ADB is 0.10% per annum. For the CTF financed portion, administered by ADB, the loan will have a 40-year term including a grace period of 10 years, and annual interest rate of 0.25%, a management fee of 0.18% per year, and such other terms and conditions as set forth in the draft loan and project agreements. Loan proceeds in each tranche will be relented by the Government on relending terms and conditions acceptable to ADB and Government of India.

**Table 1: Investment Program**  
(\$ million)

Item	Amount
<b>A. Base Cost<sup>a</sup></b>	
1. Land Acquisition and Right of Way	4
2. Equipment and Materials	626
3. Environmental and Social Mitigation	17
<b>Sub-total (A)</b>	<b>647</b>
<b>B. Project Management and Capacity Building</b>	<b>27</b>
<b>C. Contingencies<sup>b</sup></b>	<b>110</b>
<b>D. Financing Charges during Implementation<sup>c</sup></b>	<b>16</b>
<b>Total (A+B+C+D)</b>	<b>800</b>

a In mid-2013 prices.

b Physical contingencies computed at 10% for transmission lines, and 3% for other costs; Price contingencies computed in accordance with ADB guidelines;

c Includes interest and commitment charges (OCR) and management fee (CTF) as applicable.

Source: Asian Development Bank estimates

7. The financing plan is in Table 2. The counterpart financing for the project will be provided by the GOR and was assured that it will be provided on time.

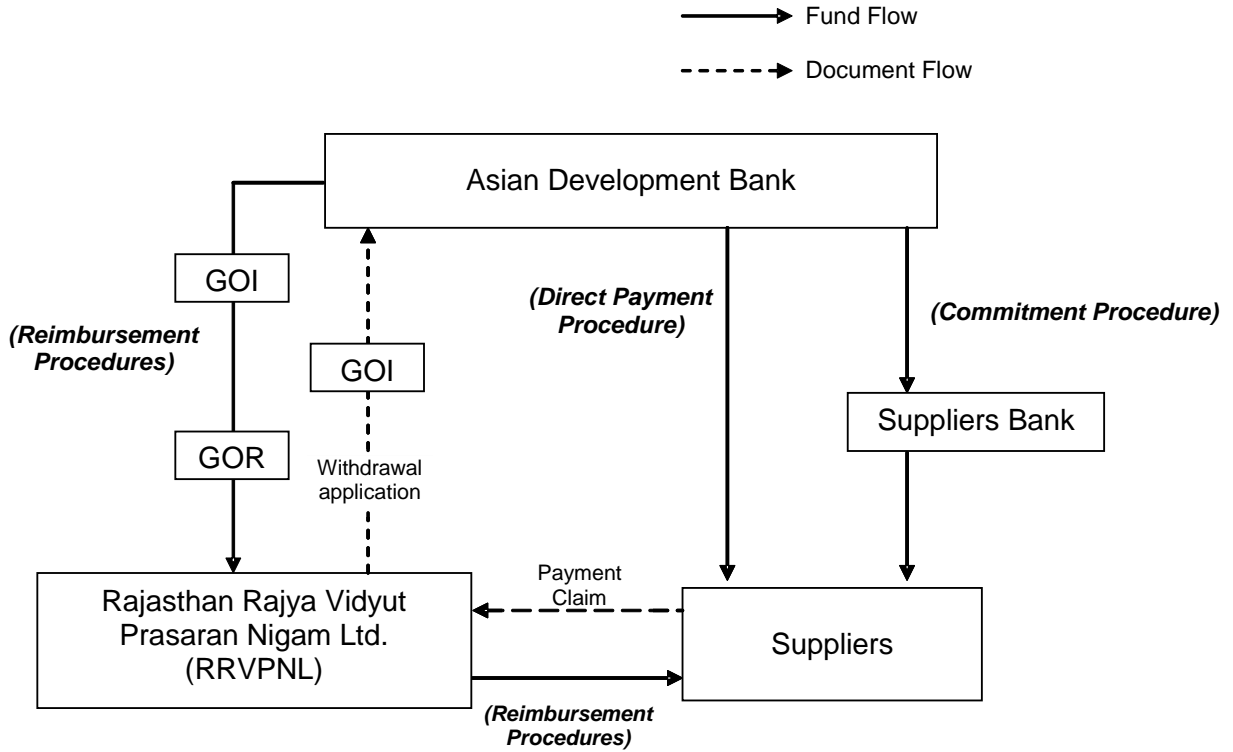
**Table 2: Financing Plan**

<b>Source</b>	<b>Investment Program (\$ million)</b>	<b>Share of Total (%)</b>	<b>Project -1</b>
Asian Development Bank OCR	300.0	38%	62.0
ADB Clean Technology Fund Loan	198.0	25%	88.0
ADB Clean Technology Fund Grant	002.0	00%	02.0
Government of Rajasthan (including RRVPNL)	300.0	38%	127.0
<b>Total</b>	<b>800.0</b>	<b>100%</b>	<b>279.0</b>

Source: ADB Staff Estimates

8. Detailed cost tables by expenditure category, including separating these by financier, will be prepared for each proposed tranche and will be included in the PFR, along with the proposed financing arrangements. Please refer to appendices for information for each project.

## B. Funds Flow Diagram



## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

9. **Financial Analysis.** The financial analysis of the proposed ADB loan has been carried out in accordance with ADB's Financial Management and Analysis of Projects<sup>1</sup>. The cost stream, used for the purpose of estimation of the financial internal rate of return (FIRR), reflects the costs incurred in delivering the estimated benefits. All financial benefits and costs have been expressed in constant prices. The methodology used has been to assess the financial benefits that will accrue to RRVPNL as additional tariff revenue.

10. The weighted average cost of capital (WACC) has been calculated as prescribed by the ADB Guidelines for Financial Analysis and the financial viability has been assessed by comparing the WACC to FIRR value for the aggregate tranche. Sensitivities of the FIRR to various cost and revenue assumptions have also been computed. The tariff income has been computed based on the prevailing tariff regulations of the Rajasthan Electricity Regulatory Commission. A 25-year period has been used for the evaluation purpose of the FIRR. Tranche 1 yields an FIRR of 2.1%, compared with the WACC of 1.1% in real terms.

11. At present, RRVPNL is not claiming any return on equity (ROE) in its tariff, as directed by the Government of Rajasthan. It is now envisaged that RRVPNL will claim ROE under the Financial Restructuring Plan to be finalized by the Government not later than 30 September 2014.

12. **Financial Management.** A financial management assessment of RRVPNL was carried out in accordance with ADB's Financial Management and Analysis of Projects, by administering the financial management assessment questionnaire, and supplemented by personal interviews. The assessment also took into consideration the external auditors' opinions for the last three years. It is noted that the auditor has provided a qualified audit opinion and recommended changes in RRVPNL's accounting systems for (i) accounting for fixed assets including capital work-in-progress; (ii) accounting for inventories; and (iii) strengthening internal controls. An action plan has been agreed between ADB and RRVPNL to implement these progressively.

13. RRVPNL has accumulated losses that amount to about 94% of its equity as of 31 March 2011, and is projected to incur losses due to the non-availability of return on equity (ROE) in the tariff. As a policy, GOR has taken a decision not to claim ROE, to avoid higher tariff burden on the consumers until loss-making distribution companies in the sector turn around. Financial projections made by the PPTA consultants after discussions with RRVPNL forecast profits from FY2022, when ROE is expected to be included in the tariff. GOR will contribute 20% equity for new capital expenditure from the state budget. It is expected that under the Financial Restructuring Plan, RRVPNL will achieve a Debt Service Coverage Ratio of 1.2 and Debt Equity ratio of 4:1 by 2017.

14. A set of measures for good governance will be implemented:

- (i) **Procurement.** Procurement activities will be strictly implemented in accordance with ADB Procurement Guidelines 2013 (as may be amended from time to time);

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<sup>1</sup> ADB 2005: *Financial Management and Analysis of Projects*, Manila

bid specifications and packaging have been prepared to ensure maximum competition under competitive bidding procedures to increase transparency, accountability, and efficiency in procurement.

- (ii) **Financial Management and Audit.** Sound financial management, accounting, and auditing procedures are in place. These will be further strengthened in the light of the auditors' observations. In particular, RRVPNL will engage a consultant who will assist in the revision of its current accounting manual and procedures. Further, RRVPNL will organize intensive training of its accounting staff, and ensure that internal control procedures are effectively implemented, and supplemented by internal audit.
- (iii) **Institutional and Corporate Governance.** There will be continued public disclosure of operational and institutional performance to ensure transparency while continued oversight by a fully functional sector regulator would facilitate sector governance.

Some of the important measures have been included as loan covenants.

## B. Disbursement

15. The Loan proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (2012, as amended from time to time)<sup>2</sup> and detailed arrangements agreed upon between the Government and ADB.

16. Pursuant to ADB's Safeguard Policy Statement (2009) (SPS)<sup>3</sup>, ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS. All financial institutions will ensure that their investments are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list to subprojects financed by ADB.

17. Before the submission of the first withdrawal application, the borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is US\$100,000, unless otherwise approved by ADB. The borrower is to consolidate claims to meet this limit for reimbursement claims. Withdrawal applications and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB members, and are eligible for ADB financing.

18. ADB's Statement of Expenditures (SOE) procedures may be used to reimburse eligible expenditures, applicable to expenditures amounting to \$100,000 or less. SOE records should be maintained and made readily available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit<sup>4</sup>.

<sup>2</sup> Available at [http://www.adb.org/Documents/Handbooks/Loan\\_Disbursement/loan-disbursement-final.pdf](http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf)

<sup>3</sup> Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

<sup>4</sup> Checklist for SOE procedures and formats are available at:

[http://www.adb.org/documents/handbooks/loan\\_disbursement/chap-09.pdf](http://www.adb.org/documents/handbooks/loan_disbursement/chap-09.pdf)

[http://www.adb.org/documents/handbooks/loan\\_disbursement/SOE-Contracts-100-Below.xls](http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-100-Below.xls)

[http://www.adb.org/documents/handbooks/loan\\_disbursement/SOE-Contracts-Over-100.xls](http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-Over-100.xls)

[http://www.adb.org/documents/handbooks/loan\\_disbursement/SOE-Operating-Costs.xls](http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Operating-Costs.xls)

[http://www.adb.org/documents/handbooks/loan\\_disbursement/SOE-Free-Format.xls](http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Free-Format.xls)

### C. Accounting

19. RRVPNL will maintain separate project financial statements and records by funding source for all expenditures incurred on the Project. Project financial statements will follow Indian accounting principles and practices or those prescribed by the Government's accounting laws and regulations.

### D. Auditing

20. RRVPNL is subject to audit by the Comptroller and Auditor General of India (CAG), the supreme audit institution. CAG maintains a roster of chartered accounting firms and appoints one or more firms to carry out the external audit of RRVPNL under the Companies Act, and carries out a direct supplementary audit of RRVPNL. The chartered accounting firms are appointed by rotation. In 2012, RRVPNL was audited by S. R. Goyal and Company, chartered accountants. Under the Program, RRVPNL will cause the detailed project financial statements to be audited in accordance with the national standards on auditing and in accordance with the CAG's audit regulations by an auditor whose qualifications, experience and terms of reference are acceptable to ADB. The audited project financial statements will be submitted in the English language to ADB within 9 months of the end of the fiscal year by the executing agency. The annual audit report will include a separate audit opinion on the proper use of the SOE procedures and compliance with financial covenants. The Government and the RRVPNL have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited accounts. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures. Audited project financial statements and the auditors' report will be published by ADB on its website, in accordance with ADB's Public Communications Policy. In addition to the audited project financial statements, RRVPNL will also submit its corporate audited accounts and auditors' report to ADB within 1 month of finalization of accounts.

## VI. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting and Retroactive Financing

21. All advance contracting and retroactive financing will be undertaken in conformity with ADB's *Procurement Guidelines* (2013, as amended from time to time) (ADB's *Procurement Guidelines*)<sup>5</sup> and ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time) (ADB's *Guidelines on the Use of Consultants*).<sup>6</sup> The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower, executing and implementing agencies have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the Project.

22. **Advance contracting.** To expedite implementation, the Government and GOR have requested ADB's approval to carry out advance actions for procurement of works and goods, and recruitment of consultants. This advance procurement action is intended to be used in all tranches of the MFF. Advance contracting was approved in May 2012.

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<sup>5</sup> Available at: <http://www.adb.org/sites/default/files/pub/2013/Guidelines-Procurement.pdf>

<sup>6</sup> Available at: <http://www.adb.org/sites/default/files/guidelines-use-consultants.pdf>

23. **Retroactive financing.** Except as otherwise agreed with ADB, the expenditures incurred for equipment, civil works, and consulting services will be eligible for retroactive financing, provided that these are incurred before the effectiveness of the related loan agreement, but not earlier than 12 months preceding the signing of the related loan agreement, and as long as they do not exceed an amount of 20% of the individual loan. It is understood that ADB’s approval of the advance contracting and retroactive financing does not commit ADB to finance the proposed Project.

**B. Procurement of Goods, Works and Consulting Services**

24. A procurement capacity assessment of RRVPNL was conducted. RRVPNL has a Procurement Unit consisting of 43 personnel. While EA has qualified staff to handle domestic procurement with national competitive bidding procedures, they have limited experience in handling procurement of goods, works and services following international competitive bidding procedures and with ADB’s latest procurement guidelines and policies. Continued attendance by RRVPNL staff to ADB-sponsored procurement seminars starting 2012 and other procurement training will provide this needed experience.

25. All procurement of goods and works will be undertaken in accordance with ADB’s *Procurement Guidelines*.

26. International competitive bidding procedures will be used for supply and turnkey contracts<sup>7</sup> estimated to cost \$10 million or more, and supply contracts valued at \$500,000 or higher. Shopping will be used for contracts for procurement of works and equipment worth less than \$100,000.<sup>8</sup>

27. National competitive bidding may also be used for certain computer or other equipment that may be purchased from the capacity development portion of loans. Before the start of any such procurement, ADB and the Government will review the public procurement laws of the central and state governments to ensure consistency with ADB’s *Procurement Guidelines*.

28. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C.

**C. Procurement Plan**

**Basic Data**

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<b>Project Name:</b>	Rajasthan Renewable Energy Transmission Investment Program – Tranche 1	<b>Executing Agency:</b>	RRVPNL
<b>Country:</b>	<b>INDIA</b>	<b>Loan Number:</b>	Tranche 1
<b>Loan Amount:</b>	\$ 150 million	<b>Date of this Procurement Plan:</b>	23 August 2013
<b>Date of First Procurement Plan:</b>	11 May 2012		

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**I. Process Thresholds, Review and 18-Month Procurement Plan**

<sup>7</sup> Including erection and testing.  
<sup>8</sup> The RRVPNL website (<http://www.RRVPNL.co.in/>) will contain links regarding procurement and other project related matters.



## 1. Project Procurement Thresholds

29. Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

<b>Procurement of Goods and Works</b>	
<b>Method</b>	<b>Threshold</b>
International Competitive Bidding (ICB) for Works	\$40,000,000 and more
International Competitive Bidding for Goods	\$1,000,000 and more
National Competitive Bidding (NCB) for Works	Less than \$40,000,000
National Competitive Bidding for Goods	Less than \$1,000,000
Shopping for Works	Less than \$100,000
Shopping for Goods	Less than \$100,000

## 2. ADB Prior or Post Review

30. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project.

<b>Procurement Method</b>	<b>Prior or Post</b>	<b>Comments</b>
<b>Procurement of Goods and Works</b>		
ICB Works	Prior	
ICB Goods	Prior	
NCB Works	Prior	
NCB Goods	Prior	
Shopping for Works	Prior	
Shopping for Goods	Prior	

## 3. Goods and Works Contracts Estimated to Cost More Than \$1 Million

31. The following table lists goods and works contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

<b>General Description</b>	<b>Contract Value (\$million)</b>	<b>Procurement Method</b>	<b>Prequalification of Bidders (y/n)</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
400/220 kV Substations	48.0	ICB (Plant)	No	June 2013	Financed by ADB.
400 kV Transmission Lines	31.4	ICB (Plant)	No	June 2013	Financed by ADB
Supply of Transformers and Conductors	45.3	ICB (Supply)	No	November 2013 (Expected)	Financed by ADB
Smart Grid Applications for Renewable Energy Transmission	11.5	ICB (Plant)	No	March 2014 (Expected)	Financed by ADB

## VII. SAFEGUARDS

32. **Environment Aspects.** RRVPNL will ensure that for all projects funded under the MFF, project facilities are designed, implemented, operated, and maintained in accordance with all applicable laws and regulations of the Government of India and Government of Rajasthan, ADB's *Safeguard Policy Statement (2009)*, and the Environment Assessment and Review Framework (EARF). For each tranche, RRVPNL will prepare necessary initial environmental examination (IEE) or environmental impact assessment (EIA), and environmental management plan (EMP) with budget and will implement both mitigation and monitoring measures for all projects proposed in accordance with the EARF. For these projects, the environmental categorization and assessment procedures defined in the EARF will be followed.

33. For any environment category A, an EIA will be prepared and made available to the public 120 days before management consideration of a PFR for approval. RRVPNL would monitor, audit, and report to ADB twice a year on implementation of the EMPs for each project. GOR will ensure that all associated projects will be constructed and commissioned in compliance with the laws and regulations of the Government of India and Government of Rajasthan.

34. For all tranches, RRVPNL will ensure that necessary environmental clearances are obtained from the applicable statutory authorities of the Government. Environmental mitigation measures set forth in the site-specific environmental management plans (EMPs) for each project are incorporated in detailed designs (including any amendments to detailed designs) and followed during construction and operation of the subprojects. RRVPNL will monitor, audit, and report twice annually to ADB the implementation of tranche-specific EMPs.

35. Adequate provisions will be made in the Program to cover the environmental mitigation and monitoring requirements, and their associated costs. The civil works contracts will incorporate mitigation measures related to construction as specified in the EMPs. Implementation of construction mitigation measures will be the contractor's primary responsibility, and the EA/IA will be responsible for implementing tranche-specific EMPs. The principal impacts are to be described in the tranche specific EMPs along with specific mitigation measures.

36. **Social Safeguards.** Required land for subprojects must be identified and acquisition procedures followed following the Land Acquisition Act, the national policy on resettlement and rehabilitation<sup>9</sup>, ADB's *Safeguard Policy Statement (2009)*, and to the resettlement framework (RF) and the indigenous peoples planning framework (IPPF). If impacts on indigenous peoples are identified, mitigation will be undertaken commensurate with the magnitude of project impacts and sensitivity levels. This will be done through preparation of an Indigenous Peoples Development Plan (IPDP) (if required), or integration of specific sections in favor of the indigenous people in the resettlement plan, based on ADB's *Safeguard Policy Statement (2009)*. Resettlement Plans for each tranche will detail the required actions, responsible parties and resources required to implement the actions identified, and will be posted on ADB's website.

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<sup>9</sup> Government of India. 2007. *The National Rehabilitation and Resettlement Policy of 2007*. New Delhi.

## **VIII. GENDER AND SOCIAL DIMENSIONS**

37. In regards to core labor standards, the loan agreements include standard assurances to be complied by contractors. Provisions include the assurance of gender equal pay for equal work, an awareness program on HIV and sexually transmitted diseases, forced labor etc. This is also mentioned in the summary poverty reduction and social strategy (SPRSS) report which is a linked document to the RRP. Tranche 1 of the Investment Program has been designed to qualify for Effective Gender Mainstreaming category. A Gender Action Plan (GAP) provides details of the social and gender based interventions that shall be complied with and is in Appendix 1.

## **IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION**

## A. Program Design and Monitoring Framework

### DESIGN AND MONITORING FRAMEWORK FOR THE INVESTMENT PROGRAM

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks <sup>a</sup>
<p><b>Impact</b></p> <p>Accelerated development of renewable energy sources in Rajasthan and India</p>	<p><b>National</b></p> <p>Grid-connected solar power generation capacity across India increases to at least 20,000 MW by 2022 (2012 baseline: 500 MW)</p> <p>Renewable energy procurement targets are met by 2022 (2012 baseline: limited compliance)</p> <p><b>Rajasthan</b></p> <p>Grid-connected solar power generation capacity increases to 10,000 MW by 2022, and grid-connected wind power generation reaches more than 4,000 MW by 2018 (2011 baseline: About 45 MW for solar, 1,767 MW for wind)</p> <p>At least 5.4 MT of carbon emissions are avoided each year due to renewable energy projects in Rajasthan by 2018<sup>a</sup> (2011 baseline: less than 1 MT annually)</p>	<p>MNRE annual report</p> <p>CEA report</p> <p>RREC annual report</p> <p>RREC annual report</p>	<p><b>Assumptions</b></p> <p>Successful development of the bulk transmission system supports renewable energy generation development in Rajasthan and provides a replicable model for other states in India.</p> <p>A combination of support measures that include effective implementation of renewable purchase obligations, penalties for noncompliance, and feed-in tariffs further deepen the renewable energy certificate market and support solar and wind energy development.</p>
<p><b>Outcome</b></p> <p>Cleaner electricity mix with more efficient and effective generation and transmission system achieved</p>	<p>Transmission network capacity expands to transmit up to 8,000 MW of renewable power generated in Rajasthan by 2018 (2011 baseline: about 1,800 MW)</p> <p>Institutional capacity in RRVPNL to operate high-penetration solar and wind power generation in Rajasthan is developed by 2018 (2012 baseline: limited)<sup>b</sup></p> <p>Private sector-led renewable energy projects are developed in solar and wind</p>	<p>RRVPNL annual reports</p> <p>RRVPNL annual reports</p> <p>RREC annual reports</p>	<p><b>Assumptions</b></p> <p>Up to 5,700 MW of grid-connected solar and wind power generation is set up in Rajasthan in a timely manner under NSM and GOR policy by 2018.</p> <p>Non investment program infrastructure required by the private developers completed in a timely manner. Key aspects of the agreed road map to integrate renewable energy are met.</p> <p><b>Risk</b></p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks <sup>a</sup>
	parks in Rajasthan (2011 baseline: none)		Expected growth in generation capacity does not match the increase in transmission capacity.
<b>Outputs</b> 1. Bulk power transmission system in Rajasthan expanded to cover identified renewable energy zones	<p>RRVPNL constructs 3 400/220/132 kV GSS at Bhadla, Ramgarh, and Jaisalmer with associated automation and control infrastructure, and 9 220/132 kV GSSs at Bap, Kanasar, Chhatrail, Pokaran, Kolayat, Ramdev Nagar, Badisid, Aau, and Bajju by 2018</p> <p>RRVPNL completes augmentation of 4 400 kV GSS at Akal, Jodhpur, Barmer, Bikaner, and upgrades of PS 2,3,4 to 132 kV GSS by 2018</p> <p>RRVPNL constructs about 1440 km of 400kV, 355 km of 220 kV, 57 km of 132 kV of transmission lines by 2018</p>	<p>RRVPNL annual report</p> <p>RRVPNL annual report</p> <p>RRVPNL annual report</p>	<b>Assumptions</b> Counterpart funds for timely project implementation are made available by the government of India, GOR, and RRVPNL.  Approval of contract awards by the relevant authorities is timely.  Land acquisition, right of way, environmental, & social clearances, transmission line construction approvals are timely.  <b>Risk</b> Increases in the prices of equipment and materials exceed contingency and inflation forecasts.
2. Institutional capacity for renewable energy parks and transmission system developed	<p>Timely preparation, procurement, supervision, implementation, monitoring and reporting of the program are achieved by 2015, including GIS-based asset accounting and renewable energy integration studies,</p> <p>Community development policy for renewable energy park is prepared by 2014 (including gender indicators and targets)</p> <p>Technical studies for phrase 2 of Bhadla solar park are done by 2015. Skills training interventions for about 20 women-led, self-help groups and community-based</p>	<p>RRVPNL annual report</p> <p>RREC annual report</p> <p>RREC annual report</p> <p>RREC annual report</p>	<b>Assumptions</b> RREC coordinates with government departments to support timely project implementation.  Techno-commercial assessment of the proposed drinking water solution successfully completed prior to implementation.

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks <sup>a</sup>
	<p>organizations are carried out by 2015, including training in animal husbandry and livelihoods</p> <p>About 400 women and girls are trained in health, nutrition, and hygiene by 2015, with RREC</p> <p>Pilot community models for renewable energy-based water supply benefit about 200 families by 2015, with RREC</p> <p>Training is provided for about 15 CSR champions within RREC, RSPL, RRVPNL, and other stakeholder groups in GOR (including 50% women) by 2015</p>	<p>RREC annual report</p> <p>RREC annual report</p> <p>RREC annual report</p>	
<p><b>Activities with Milestones</b></p> <p><b>Project 1 – Creation and/or augmentation of pooling substation and associated infrastructure, identified transmission lines</b></p> <p>1.1 Procurement of major equipment: Issuance of bidding documents begins from Q2 2013 and contract awards start from Q1 2014</p> <p>1.2 Construction starts by Q2 2014</p> <p>1.3 Substations and transmission lines commissioned by Q2 2016</p> <p><b>Project 2 – Creation and/or augmentation of existing substations and development of identified transmission lines</b></p> <p>2.1 Procurement of major equipment: Issuance of bidding documents begins from Q2 2014 and contract awards start from Q4 2014</p> <p>2.2 Construction starts by Q1 2015</p> <p>2.3 Substations and transmission lines commissioned by Q1 2017</p> <p><b>Project 3 – Construction of remaining infrastructure</b></p> <p>3.1 Procurement of major equipment: Issuance of bidding documents begins from Q2 2015 and contract awards start from Q4 2015</p> <p>3.2 Construction starts by Q1 2016</p> <p>3.3 Infrastructure commission by Q1 2018</p>		<p><b>Inputs</b></p> <p><b>Loan</b> ADB OCR: \$300 million ADB CTF: \$198 million</p> <hr/> <p><b>Government of Rajasthan (including RRVPNL): \$ 300 million</b></p> <hr/> <p><b>Technical Assistance Grant from ADB CTF: \$ 2.0 million</b></p>	

ADB = Asian Development Bank, CTF = Clean Technology Fund, DC = double circuit, EA = executing agency, GOR = Government of Rajasthan, GSS = grid substation, kV = kilovolt, MW = megawatt, RERC = Rajasthan Electricity Regulatory Commission, RREC = Rajasthan Renewable Energy Corporation, RRVPNL = Rajasthan Rajya Vidyut Prasaran Nigam Limited.

Sources: ADB, RRVPNL, and Government of Rajasthan.

<sup>a</sup> ADB estimates based on the renewable energy capacity addition plan for Rajasthan state to be published by RREC and grid emission factors to be published by Ministry of Power.

<sup>b</sup> To be supported through ADB. 2011. Technical Assistance for Smart Grid Development in South Asia. Manila

## B. Monitoring

38. A loan inception mission for each tranche of the Facility will ensure that all administrative matters pertaining to each subproject are properly in place and working relationships are established between concerned ADB staff and RRVPNL staff. Details relating to report requirements, accounting system, compliance with loan covenants, disbursement procedures and withdrawal applications will be clarified at this time.

39. **Project performance monitoring.** The quarterly progress reports to be prepared by RRVPNL and submitted to ADB within 30 days of the end of each quarter will include information on implementation progress, contracting and disbursement figures, as well as compliance matters. These quarterly reports will provide information necessary to update ADB's Project Performance Management System<sup>10</sup>. Progress on project outputs will be reported, as well as progress on the performance target indicators as listed in the DMF for each respective tranche of the Facility. Third party reports such as tariff orders, utility company annual reports, and other government reports covering the energy sector can also provide information on progress of certain performance target indicators as listed in the DMF.

40. **Compliance monitoring:** The quarterly reports will cover compliance matters related to loan covenants. Review missions will review and discuss compliance matters with the EA, including any adjustments to the compliance reporting process or for corrective actions, if required.

41. **Safeguards and gender monitoring:** The quarterly reports will also include sections on the monitoring of environment and social safeguards and gender matters. For all environment category A projects, if any, a progress report on implementation of the relevant EMPs is required semiannually.

## C. Evaluation

42. ADB will field regular review missions every 6 months to review the status of contract awards, disbursements, physical progress, and implementation of the environmental management plans and resettlement plans. Within 3 months of physical completion of the Project the executing agency will submit a project completion report to ADB.<sup>11</sup>

## D. Reporting

43. The executing agency will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) updated procurement plan and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 3 months of physical completion of the Project. To ensure projects continue to be both viable and sustainable, project accounts and the executing agency audited financial statements (AFSs), together with the associated auditor's report, should be adequately reviewed.

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<sup>10</sup> ADB's Project Performance Management System is available at:  
<http://www2.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

<sup>11</sup> Project completion report format is available at:  
<http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

## E. Stakeholder Communication Strategy

44. During the preparatory stages of each tranche under the Facility, consultations will be carried out with relevant stakeholders and government officials concerned in accordance with ADB's *Safeguards Policy Statement, 2009*.

45. The Stakeholder Communications Strategy is described in the following table.

**Table: Stakeholder Communication Strategy**

Project information to be communicated	Means of Communication	Responsibility	Audience	Frequency
Report and Recommendation of the President (RRP) with linked documents	ADB website	ADB	ADB, GOI, GOR, Development Partners, Civil Society, Individuals	Once
Project information while planning/ designing	Discussions and stakeholder consultations	ADB/RRVPNL	Project stakeholders and beneficiaries	Regular intervals during planning and design
Status of implementation during construction	Reports	RRVPNL/ Contractors/ Consultants	ADB, GOI, GOR, Development Partners, Civil Society, Individuals	Every quarter
Project Performance Reports and Project Information Documents	ADB website	ADB	ADB, GOI, GOR, Development Partners, Civil Society, Individuals	Every quarter
Project completion report	ADB website	ADB	ADB, GOI, GOR, Development Partners, Civil Society, Individuals	Once

ADB = Asian Development Bank; GOR = Government of Rajasthan; GOI = Government of India; RRVPNL = H.P. Power Transmission Corporation Ltd.

## X. ANTICORRUPTION POLICY

46. The Government, the State, and the EA are advised of ADB's Anticorruption Policy (1998, as amended to date). Consistent with its commitment to good governance, accountability and transparency, implementation of the each tranche under the Facility shall adhere to ADB's Anticorruption Policy. ADB reserves the right to review and examine, directly or through its agents, any alleged corrupt, fraudulent, collusive, or coercive practices relating to the each tranche under the Facility. In this regard, investigation of Government officials, if any, would be requested by ADB to be undertaken by the Government. To support these efforts, relevant provisions of ADB's Anticorruption Policy are included in the Loan Regulations and the bidding documents. In particular, all contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the EA and all contractors, suppliers, consultants, and other service providers as they relate to the Project. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the Project(s).<sup>12</sup>

<sup>12</sup> ADB's Integrity Office website is available at: <http://www.adb.org/integrity/unit.asp>



47. RRVPNL shall announce the Investment Program and business opportunities associated with the Investment Program on its website. In addition, the website shall at least disclose the following information in relation to works, goods and services procured for the Investment Program: (i) the list of participating bidders, (ii) the name of the winning bidder, (iii) the amount of the contracts awarded, and (iv) the goods and services procured;

48. RRVPNL, through the PMU and through independent auditors, shall conduct periodic inspections and random spot checks of contractors' activities related to fund withdrawals and settlements.

## **XI. ACCOUNTABILITY MECHANISM**

49. People who are, or may in the future be, adversely affected by the project may address complaints to ADB, or request the review of ADB's compliance under the Accountability Mechanism.<sup>13</sup>

## **XII. RECORD OF FAM CHANGES**

50. All revisions/updates during course of implementation should be retained in this Section to provide a chronological history of changes to implemented arrangements recorded in the FAM.

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<sup>13</sup> For further information see: <http://compliance.adb.org/>.

### PROJECT 1 INFORMATION

I. Project Implementation Plan for Tranche 1

Description	2012				2013				2014				2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Project Formulation</b>																				
Finalization of Scheme	■																			
Preparation of Feasibility Report		■																		
Government Financial Approval			■	■	■	■														
<b>Implementation</b>																				
<b>400kV Substations Construction</b>																				
Tendering and Award							■	■	■	■										
Preparatory works and Mobilization									■	■	■									
Civil works, supply and erection of Equipments										■	■	■	■	■	■	■	■	■	■	■
Testing and Commissioning																			■	
<b>400kV Transmission Lines Construction</b>																				
Tendering and Award							■	■	■	■										
Preparatory works and Mobilization									■	■	■									
Civil works, supply and erection of Equipments										■	■	■	■	■	■	■	■	■	■	■
Testing and Commissioning																			■	
<b>Smart Grid Application</b>																				
Tendering and Award										■	■	■	■							
Preparatory works and Mobilization													■	■						
Supply Equipments														■	■	■	■	■	■	■
Testing and Commissioning																			■	
• Reviews										■		■		■		■		■		■
• Project Completion Report																			■	■

## II. COSTS AND FINANCING

Table 1: Total Project Cost for Project 1

<b>A Investment Costs</b>		US\$ Million
1	Land Acquisition and Right of Way	0.8
2	Equipment and Materials	219.2
3	Environment and Social Mitigation	6.0
<b>Subtotal (A)</b>		<b>226.0</b>
<b>B Recurrent Costs</b>		
	Project Management and Capacity Building	14.2
<b>Subtotal (B)</b>		<b>14.2</b>
<b>C Contingencies</b>		
1	Price Contingencies	16.0
2	Physical Contingencies	12.8
<b>Subtotal (C)</b>		<b>28.8</b>
<b>D Financing Charges</b>		
1	IDC and Commitment Charges during construction	7.9
<b>Subtotal (D)</b>		<b>7.9</b>
<b>Total (A+B+C+D)</b>		<b>276.9</b>

Source: Asian Development Bank Estimates

**Table 2: Project Cost by Financier for Project 1**

		ADB OCR		ADB CTF Loan		RRVPLN		Total
		\$ million	% of cost	\$ million	% of cost	\$ million	% of cost	\$ million
<b>A</b>	<b>Investment Costs</b>							
1	Land Acquisition and Right of Way		0.0%		0.0%	0.8	100.0%	0.8
2	High Voltage Equipment and Control Systems <sup>14</sup>	56.0	41.2%	80.0	58.8%	0.0	0.0	136.0
3	Other Equipment and Materials					83.2	100.0%	83.2
4	Environment and Social Mitigation		0.0%		0.0%	6.0	100.0%	6.0
	<b>Subtotal (A)</b>	<b>56.0</b>	<b>24.8%</b>	<b>80.0</b>	<b>35.4%</b>	<b>90.0</b>	<b>39.8%</b>	<b>226.0</b>
<b>B</b>	<b>Recurrent Costs</b>							
1	Project Management <sup>15</sup>		0.0%	-	0.0%	14.2	100.0%	14.2
	<b>Subtotal (B)</b>	<b>-</b>	<b>0.0%</b>	<b>-</b>	<b>0.0%</b>	<b>14.2</b>	<b>100.0%</b>	<b>14.2</b>
<b>C</b>	<b>Contingencies<sup>16</sup></b>							
1	Price Contingencies	-	0.0%	8.0	50.0%	8.0	50.0%	16.0
2	Physical Contingencies	6.0	46.9%	0.0	0.0%	6.8	53.1%	12.8
	<b>Subtotal (C)</b>	<b>6.0</b>	<b>20.8%</b>	<b>8.0</b>	<b>27.8%</b>	<b>14.8</b>	<b>51.4%</b>	<b>28.8</b>
<b>D</b>	<b>Financing Charges</b>							
1	Interest and Commitment Charges during construction		0.0%		0.0%	7.9	100.0%	7.9
	<b>Subtotal (D)</b>	<b>-</b>	<b>0.0%</b>	<b>-</b>	<b>0.0%</b>	<b>7.9</b>	<b>100.0%</b>	<b>7.9</b>
<b>Total Project Cost (A+B+C+D)</b>		<b>62.0</b>	<b>22.4%</b>	<b>88.0</b>	<b>31.8%</b>	<b>126.9</b>	<b>45.8%</b>	<b>276.9</b>

ADB = Asian Development Bank, ADB CTF = ADB administered Clean Technology Fund, RRVPLN = Rajasthan Rajya Vidyut Prasaran Nigam Limited  
Source: Asian Development Bank estimates

<sup>14</sup> Includes taxes, duties, freight and insurance

<sup>15</sup> Includes overhead costs associated with project management, implementation and monitoring

<sup>16</sup> Physical contingencies computed at 10% for lines and 3% for other equipment; Price contingencies are computed in accordance with ADB. 2005. *Financial Management and Analysis of Projects*. Manila.

**Table 3: Project Costs by Year for Project 1**  
**\$ million**

		Total Cost	Year 2 (2014)	Year 3 (2015)	Year 4 (2016)
<b>A</b>	Investment Costs				
1	Land Acquisition and Right of Way	0.8	0.8	-	-
2	High Voltage Equipment and Control Systems	136.0	41.9	81.0	13.1
3	Other Equipment and Materials	83.2	25.6	49.6	8.0
4	Environment and Social Mitigation	6.0	6.0	-	-
	Subtotal (A)	226.0	74.3	130.6	21.1
<b>B</b>	Recurrent Costs				
1	Project Management	14.2	4.4	8.4	1.4
	Subtotal (B)	14.2	4.4	8.4	1.4
<b>C</b>	Contingencies				
1	Price Contingencies	16.0	3.6	10.2	2.2
2	Physical Contingencies	12.8	3.9	7.6	1.2
	Subtotal (C)	28.8	7.5	17.8	3.4
<b>D</b>	Financing Charges				
1	Interest and Commitment Charges during construction	7.9	1.3	5.8	0.8
	Subtotal (D)	7.9	1.3	5.8	0.7
	<b>Total Project Cost (A+B+C+D)</b>	<b>276.9</b>	<b>87.6</b>	<b>162.6</b>	<b>26.8</b>

Source: Asian Development Bank estimates

**Table 4: Allocation and Withdrawal of Loan and Grant Proceeds****Rajasthan Renewable Energy Development Investment Program – Tranche 1 ADB OCR**

CATEGORY			ADB FINANCING
Number	Item	Amount Allocated \$ million	Percentage and basis for withdrawal
1.	Equipment and Materials	56.0	41.2% of total expenditure
2.	Unallocated	6.0	
	Total	62.0	

**Rajasthan Renewable Energy Development Investment Program – Tranche 1 ADB-CTF LOAN**

CATEGORY			ADB FINANCING
Number	Item	Amount Allocated \$ million	Percentage and basis for withdrawal
1.	Equipment and Materials	80.0	58.8% of total expenditure
2.	Unallocated	8.0	
	Total	88.0	

ADB CTF = ADB administered Clean Technology Fund

**Rajasthan Renewable Energy Development Investment Program – Tranche 1 ADB-CTF TA GRANT**

CATEGORY			ADB FINANCING
Number	Item	Amount Allocated \$ million	Percentage and basis for withdrawal
1.	Capacity Building	2.0	100% of total expenditure
	Total	2.0	

ADB CTF = ADB administered Clean Technology Fund

## VIII. Gender and social dimensions

Gender Action Plan for Project 1 (To be coordinated mainly through RREC. RRVPNL will undertake specified activities)

	Outputs	Activities & Targets	Timeline	Responsibility
<b>POLICY AND STRATEGY GUIDANCE</b>				
<b>A</b>	<b>Framework for sustainable and socially inclusive renewable energy parks in Rajasthan</b>			
1	State-level environmental and social sustainability framework for solar projects developed by/ in association with RREC	<ul style="list-style-type: none"> <li>Develop a practical, implementable and measurable environmental and social sustainability framework (including gender and socially-inclusive and CSR targets) to guide the development of future solar projects/parks in Rajasthan (State-wide policy target).</li> <li>Conduct one annual multi-stakeholder' consultation (during each year of TA implementation) at all levels with the equal participation of women (Target: W-50%/M-50%).</li> <li>Develop a minimum of five (5) gender and socially inclusive indicators and targets in the framework focused on promoting women's role, status, participation, safety, health and position.</li> <li>Nominate about 15 to a maximum of 20 CSR Champions within the Government of Rajasthan (Target: W-10/M-10).</li> <li>Conduct one annual training workshop (during each year of TA implementation) for 'CSR champions' across the Government of Rajasthan on the environmental and social sustainability framework, including CSR and gender mainstreaming in renewable energy development projects (Target: minimum 30% participation of women).</li> </ul>	Year 1 Year 1, 2, 3 Year 1 Year 1, 2, 3	RREC NGO/TA Consultant
<b>B</b>	<b>Building a socially inclusive CSR based "Community Development Fund" for solar park operations</b>			
2	Provide assistance to design and develop a Community Development Fund (CDF) for RREC for the Bhadla Solar Park (SPV)	<ul style="list-style-type: none"> <li>In alignment with RREC's CSR strategy, formulate terms and conditions (T&amp;C's) for operating and disbursing funds financed by the CDF.</li> <li>In the strategy, establish that 25% or more of the management committee will comprise women.</li> <li>Community-based CSR activities focused on improving the quality of life of peoples, and in particular contributing to the empowerment of women and girls (Target: 40% of all CDF initiatives focused on women/girls).</li> </ul>	Year 1	RREC NGO/TA Consultant
<b>SOCIALLY INCLUSIVE NEEDS BASED COMMUNITY AND LIVELIHOODS DEVELOPMENT</b>				
<b>C</b>	<b>Needs based livelihood training</b>			
3	Create income generating activities and alternative livelihood options, especially for women	<ul style="list-style-type: none"> <li>Conduct 4 workshops for 50 – 70 women SHG/CBO members on book-keeping, accounting, finance management and negotiations skills.</li> <li>Conduct 4 training workshops for 50 - 70 women on micro enterprises development focused on animal husbandry to ensure improved rearing practices and income.</li> <li>Conduct 4 vocational training programs focused on embroidery work and handicrafts for at least 50 - 70 women and support trained women to establish market linkages to facilitate the sale of finished products.</li> <li>Create an <i>Enterprise Development Fund</i> to enable trained SHG's or new functional groups establish and pursue new business opportunities.</li> </ul>	Year 1 to Year 3	RREC Local administration NGO/TA consultant
<b>D</b>	<b>Health and soft skills training</b>			

4	Promote improved maternal/child health, safe motherhood practices, sanitation and nutrition related practices	<ul style="list-style-type: none"> <li>Conduct 4 behavior change communications campaigns (including training) for 100 health workers, including women and girls, focused on promoting improved intra-and-inter household behavioural changes focused on maternal/child health, hygiene, sanitation and nutrition and child marriage (target: W-70; M-30).</li> </ul>	Year1 to Year 3	RREC Local administration NGO/TA consultant
<b>ENERGY ACCESS: USE OF NEW AND EFFICIENT COMMUNITY BASED OFF-GRID SOLAR POWERED TECHNOLOGIES</b>				
<b>E</b>	<b>Water supply</b>			
5	Improve access to clean and regular supply of water in selected project sites	<ul style="list-style-type: none"> <li>Regular and safe water supply coverage to a minimum of 200 households across 10 dhanis (or more), including poor, low- income and women headed households, through the construction of solar-powered water pumps and water treatment plans.</li> <li>The type of technology used will depend on the results from initial feasibility studies carried out on the hydrological conditions of a selected number of target areas.</li> </ul>	Year 1 to Year 3	RREC Local administration NGO/TA consultant
<b>F</b>	<b>Lighting</b>			
6	Increase access to electricity supply using renewable energy sources	<ul style="list-style-type: none"> <li>Solar powered lanterns supplied to a minimum of 100 households from 3 'dhanis' (or more), including peoples living below the poverty line and women headed households.</li> <li>Establish/form a fee for service / rental model for solar lanterns through micro-entrepreneurs and SHG's/function groups</li> <li>Provide training on after-sales (O&amp;M) activities to at least 10 women at the dhani/community level.</li> </ul>	Year 1 to Year3	RREC Local administration NGO/TA consultant
<b>TRANCHE 1 PROJECT SPECIFIC GENDER INCLUSIVE MEASURES</b>				
<b>G</b>	<b>Gender inclusive construction management and working conditions</b>			
7	Promote women's role and participation in construction and maintenance and ensure their safety and care	<ul style="list-style-type: none"> <li>Construct separate toilets for men and women at project sites.</li> <li>Introduce and implement occupational health and safety measures separately for working men and women.</li> <li>Support RRVPNL to establish a child care facility to look after children of working mothers at construction sites (Target: 100% working mothers).</li> <li>Sensitization workshops held for contractors on gender responsive targets and core labor standards, including equal pay for work of equal value.</li> <li>Bidding documents contain provisions for core labor standards (Target: 100%).</li> </ul>	Pre/ Construction	RRVPNL Locally fielded NGO

CBOs = Community Based Organizations CDF = Community Development Fund; CSR = Corporate Social Responsibility; 'Dhanis' = small congregations of rural households sharing community resources; W = Women; M = Male; NGO = Non-government organization; RREC = Rajasthan Renewable Energy Corporation; RRVPNL = Rajasthan Rajya Vidyut Prasaran Nigam Ltd; SHGs = Self Help Groups; TA = Technical Assistance.