

**FRAMEWORK FINANCING AGREEMENT  
RAJASTHAN RENEWABLE ENERGY TRANSMISSION INVESTMENT PROGRAM**

**Parties** This Framework Financing Agreement (“FFA”) dated 23 August 2013 is between India acting by its President (“India”) and Asian Development Bank (“ADB”).

**MFF Investment** India and the State of Rajasthan (“the State”) are committed to and will implement the Rajasthan Renewable Energy Transmission Investment Program (“Investment Program”), which is an integral part of the State’s power sector road map. Both the Investment Program and the State’s power sector road map are described in Schedule 1 hereto.

The total cost of the Investment Program over the period 2013 to 2018 is expected to be \$800.0 million.

**Multitranche Financing Facility** Multitranche Financing Facility (the Facility) is intended to finance components and/or projects under the Investment Program (expected to be in 3 tranches), provided that such components and/or projects comply with the criteria set out in Schedule 4 hereto and that understandings set out in this FFA are complied with.

These include:

Electric transmission system investments, including transmission lines, substations and other system infrastructure;<sup>1</sup> and

Non-physical investments include project management, supervision, implementation, monitoring, preparation of future tranches and related capacity building.

This FFA does not constitute a legal obligation on the part of ADB to commit any financing. At its sole discretion, exercised reasonably, ADB has the right to deny any financing request made by India, cancel the uncommitted portion of the Facility, and withdraw India’s right to request any financing tranche under the Facility. Financing tranches may be made available by ADB provided matters continue to be in accordance with the general understandings and expectations on which the Facility is based and which are laid out in this FFA.

This FFA does not constitute a legal obligation on the part of

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<sup>1</sup> Includes equipment and civil works including renewable energy management centers at the solar park or similarly placed locations with high renewable energy capacity, hardware including communication equipment, software for operations and management as well as management and control buildings.

India to request any financing. India has the right not to request any financing under the Facility. India also has the right at any time to cancel any uncommitted portion of the Facility.

India and ADB may exercise their respective rights to cancel the Facility or any uncommitted portion thereof, and ADB may exercise its right to refuse a financing request, by giving written notice to such effect to the other parties. The written notice will provide an explanation for the cancellation or refusal and, in the case of a cancellation, specify the date on which the cancellation takes effect.

### ***Financing Plan***

The financing plan for the Investment Program is summarized below.

<b>Financing Source</b>	<b>Total (\$ million)</b>	<b>Share % of Total</b>
<u>Facility</u>		
ADB Ordinary Capital Resources	300.0	
ADB Clean Technology Fund <sup>2</sup>	200.0	63
Government (State of Rajasthan)	300.0	37
<b>Total Investment Program</b>	<b>800.0</b>	<b>100</b>

### **Financing Terms**

ADB will provide loans to finance components and/or projects under the Investment Program, as and when the latter are ready for financing, provided, India is in compliance with the understandings hereunder, and the components and/or projects are in line with those same understandings. Each loan will constitute a tranche.

Each tranche may be financed under terms different from the financing terms of previous or subsequent tranches. The choice of financing terms will depend on the project, and ADB's financing policies, all prevailing on the date of signing the legal agreement for such tranche.

Tranches may be provided in sequence or simultaneously, and some may overlap in time with each other.

Commitment charges are not payable on the Facility. They are payable only on financing actually committed by ADB as a loan. ADB rules on commitment charges, which are in effect when the legal agreements are signed for a tranche, will apply with respect to such tranche.

<sup>2</sup> Includes provision for ADB Clean Technology Fund to be administered by ADB in accordance with its terms.

### ***Amount***

The maximum financing amount available under the Facility is five hundred million US dollars (US \$500,000,000). It will be provided in individual tranches (i) in the amount of three hundred million US dollars (US \$300,000,000) from ADB's ordinary capital resources<sup>3</sup>, and (ii) in the amount of two hundred million dollars (US \$200,000,000) from the Clean Technology Fund, to be administered by ADB, of which one hundred and ninety eight million dollars (US \$198,000,000) will be provided as loan and two million dollars (US \$2,000,000) as technical assistance grant.

### ***Availability Period***

The last date on which any disbursement under any tranche may be made will be 31 December 2018. The last financing tranche is expected to be executed no later than 30 June 2016.

### ***Terms and Conditions***

India will cause the proceeds of each tranche to be applied to the financing of expenditures of the Investment Program, in accordance with conditions set forth in this FFA and the legal agreements for each tranche.

### **Execution**

The Executing Agencies will be the State acting through its Energy Department, and the Rajasthan Rajya Vidyut Prasaran Nigam Limited. (RRVPNL). The Executing Agencies will implement the Investment Program in accordance with the principles set forth in Schedule 1 to this Agreement, and as supplemented in the legal agreements for each tranche.

### **Periodic Financing Requests**

India may request, and ADB may agree, to provide loans under the Facility to finance the Investment Program and its related components and/or projects upon the submission of a Periodic Financing Request (PFR). Each PFR should be submitted by India. India will make available, through the State to RRVPNL, the proceeds of the tranche in accordance with the related PFR, and the legal agreements for the tranche.

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<sup>3</sup> Provisions of the Ordinary Operations Loan Regulations applicable to LIBOR-Based Loans Made from ADB's Ordinary Capital Resources, dated 1 July 2001, would apply to each Loan, subject, to modifications, if any, that may be included under any Loan Agreement (said Ordinary Operations Loan Regulations as so modified, if any, being hereinafter called the Loan Regulations).

Each individual tranche will be for an amount of no less than thirty million (\$30,000,000), or its equivalent. ADB will review the PFRs and, if found satisfactory, prepare the related legal agreements.

The components and/or projects for which financing is requested under the PFR will be subject to the selection criteria set out in Schedule 4 hereto, satisfactory due diligence, and preparation of relevant safeguard and fiduciary frameworks and other documents. The Facility will be implemented in accordance with the general framework set out in Schedule 3 to this FFA, and the Facility Administration Manual agreed between India and ADB.

Until notice is otherwise given by India, the Secretary, Additional Secretary, Joint Secretary, Director, or Deputy Secretary in the Department of Economic Affairs, Ministry of Finance, will be India's authorized representative for purposes of executing PFRs.

**General Implementation Framework**

The Facility will be implemented in accordance with the general framework set out in Schedule 3 hereto.

**Procedures**

Tranches to be provided under the Facility will be subject to the following procedures and undertakings:

- (a) India will have notified ADB of a forthcoming PFR in advance of the submission of the PFR.
- (b) India will have submitted a PFR in the format agreed with ADB.
- (c) ADB may, in its sole discretion, with reasons provided, decline to authorize the negotiation and execution of any legal agreement for a tranche.
- (d) If ADB confirms acceptance of the PFR, the legal agreements will be negotiated and executed by the parties.

**PFR information**

The PFR will substantially be in the form attached hereto, and will contain the following details:

- (i) Loan including co-financing amount;
- (ii) Description of components and/or projects to be financed;
- (iii) Cost estimates and financing plan;
- (iv) Implementation arrangements specific to the components and/or projects;
- (v) Confirmation of the continuing validity of and adherence to the understanding in this Agreement;
- (vi) Confirmation of compliance with the provisions under

- previous Loan Agreement(s) and Project Agreement(s), as appropriate; and
- (vii) Other information as may be required under the Facility Administration Manual, or reasonably requested by ADB.

**Safeguards**

Attached as Schedule 5 are references to the Safeguard Frameworks that will be complied with during the implementation of the Facility.

ADB's Safeguard Policies in effect as of the date of signing of legal agreements for a tranche will be applied with respect to the components and/or projects financed under such financing tranche.

**Procurement**

All goods and services to be financed under the Facility will be procured in accordance with ADB's *Procurement Guidelines* (2013, as amended from time to time).

**Advance contracting;  
Retroactive financing**

Under each tranche, ADB may, subject to its policies and procedures, allow on request (a) advance contracting of civil works, equipment and consulting services and (b) retroactive financing of eligible expenditures for civil works, equipment and consulting services up to 20% of the proposed individual loan, incurred prior to loan effectiveness but not earlier than 12 months before the date of signing of the related legal agreement. India acknowledges that any approval of advance contracting and/or retroactive financing will not constitute a commitment by ADB to finance the related project.

**Disbursements**

Disbursements will be made in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time).

**Monitoring, Evaluation,  
and Reporting  
Arrangements**

Schedule 2 hereto sets out the Design and Monitoring Framework for the Facility, against which the implementation effectiveness will be evaluated.

**Undertakings**

Attached as Schedule 6 are the undertakings provided by India, the State, and RRVPNL.

**Representations**

India will cause the State to ensure that each of the following representations is accurate at the time a PFR is submitted:

RRVPNL is a limited liability company, duly established and validly existing under the laws of India.



## SCHEDULE 1 MFF CONSTITUENTS

### A. Road Map

#### Introduction

1. Over the past decade, increasing awareness of climate change issues and energy security considerations has forced the global community to focus on power generation through renewable energy sources, including solar and wind energy. For the last decade, several countries have introduced policy instruments including renewable procurement obligations and feed-in-tariffs to stimulate development of renewable energy generation.

2. Among renewable energy technologies, solar photovoltaic (PV) is considered among the fastest-growing. Between 2004 and 2009, grid-connected solar PV capacity grew annually at an average rate of 60%. There has also been increased interest in concentrating solar power (CSP) technologies since 2005. Global capacity of CSP, mainly in Spain and the United States, increased by over 70% between 2005 and 2009, from 354 megawatts (MW) to about 610 MW. Global wind power capacity has exponentially increased over the last decade to over 238,000 MW. The capacity additions are coupled with declining production costs due to rapid technological advances including manufacturing techniques, increases in efficiency, use of new material, increasing economies of scale; and consistent demand-side pull from national renewable energy promotion programs.

#### Background

3. India, with its annual electricity deficit of nearly 8% and with nearly 350 million people still without access to electricity, is also beset with having to increasingly depend on coal imports to provide its electricity requirements.<sup>4</sup> The Government of India in its Integrated Energy Policy (IEP) 2006 estimates that India needs to increase its primary energy supply by 3 to 4 times and electricity generation by 5 to 6 times to meet the lifeline per capita consumption by 2031, and sustain economic growth. To meet these growing needs for energy, Government of India has decided to develop all sources of energy including renewable energy. To balance the conflicting objectives of growth, addressing climate related and energy security concerns, India would need to scale up development of renewable energy resources by an order of magnitude.

4. Given its tropical location, India receives solar irradiation ranging from 4 to 7 kWh/square meter/day across the country. India has a potential to deploy solar technology at a gigawatt scale and also become a global manufacturing hub. Given sufficient availability of non-cultivable land in certain regions, India initiated steps to tap into the large potential for solar energy development. In 2010, India launched the Jawaharlal Nehru National Solar Mission (JNNSM) to (i) create an enabling policy framework for deployment of 20 gigawatt (GW) of solar power by 2022; (ii) ramp up capacity of grid-connected solar power generation in a phased manner; (iii) deploy 20 million solar lighting systems for rural areas by 2022; and (iv) create favorable conditions to enhance solar manufacturing capability, particularly solar thermal for indigenous production and market leadership. The main phases of the JNNSM include

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<sup>4</sup> Coal imports are 15-20% of the mix at present.

**Table 1: JNNSM timelines and targets**

<b>Timeline</b>	<b>Targets</b>
Phase 1 (2010-2013)	Grid Connected: 1000-2000 MW Off-grid: 200 MW
Phase 2 (2013-2017)	Grid Connected: 4000-10000 MW Off-grid: 1000 MW
Phase 3 (2017-2022)	Grid Connected: 20000 MW Off-grid: 2000 MW

5. India has been one of the fastest growing global markets for wind with over 16,000 MW installed by 2011. The Ministry of New and Renewable Energy has estimated India's wind potential to be over 100,000 MW. The target over the 12<sup>th</sup> five year plan (2012-2017) would be the installation of 11,000 MW while overall about 40,000 MW of wind is expected by the end of 2022.

6. Rajasthan is the largest state in India with a vast desert area with significant potential for solar and wind power generation. The western part of the Rajasthan is a renewable energy concentration zone where gigawatt scale capacity addition of solar and wind plants can be expected over the next 5 years. 873 MW out of 1100 MW of solar power projects awarded under the JNNSM Phase 1 are to be located in Rajasthan.

7. In the case of Rajasthan, the state's renewable energy investment plan includes solar and wind power generation in parks, transmission, smart grid, associated infrastructure and community schemes. Generation investments include concentrated solar power (CSP) plants, wind and solar generation plants financed by local lenders including the Indian Renewable Energy Development Agency (IREDA) and foreign lenders. The Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRVPL) is mandated to evacuate all electricity produced in the state, including renewable energy produced in the solar and wind parks. Rajasthan further supports the program through provision of land and common facilities such as water supply and access roads. The overall investment plan for renewable energy development in Rajasthan amounts to over \$11 billion by 2018 of which nearly \$10 billion would be from the private sector components (mainly generation) while over \$ 1 billion would be from the public sector (mainly transmission).<sup>5</sup> The Rajasthan Renewable Energy Transmission Investment Program financed by ADB and GOR would support \$ 800 million of transmission investment to evacuate renewable energy generation to the state and national grid.

### **Challenges**

8. For the energy sector in India, the key challenges identified include the deficit in generation, the increasing dependence on imported fossil fuel, large population with no access to electricity and the financial status of the electricity distribution companies. Some of the key challenges to the development of the renewable energy sector include (a) high upfront costs compared to conventional fossil fuel based power, (b) identification of large tracts of suitable land to locate such power plants, (c) intermittent nature of generation output from a grid stability point of view, (d) need for adopting newer technologies to suitably harness the resource, (e) connectivity to the grid for evacuation of power from sites often in remote areas, (f) lack of data

<sup>5</sup> Derived from assessments undertaken by Ministry of New and Renewable Energy that plans for a transmission system to support evacuation of 5700 MW of wind and solar expected to be set up across Rajasthan over this period.



or assessment of the renewable resource and (g) inadequate appraisal capacity for such technologies.

9. To address the challenges, the JNNSM includes several measures including (i) development of pilot CSP demonstration projects with cutting edge technologies through an innovative public-private partnership (PPP) approach facilitated by Solar Energy Corporation of India under the Ministry of New and Renewable Energy (MNRE), (ii) development of off-grid and mini-grid PV projects to enhance rural electrification for direct poverty intervention, and (iii) setting up utility scale solar power generation plants through promotion and establishment of solar parks with dedicated infrastructure by state governments, among others, e.g., Gujarat, Maharashtra, and Rajasthan. The PPP driven solar park approach under the JNNSM and also state policies would support streamlining of the project development timeline by letting government agencies undertake land acquisition and support clearance of necessary permits, provide dedicated common infrastructure such as transmission lines to set up solar power generation plants by the private sector, that is expected to reduce the project development cost and risks. MNRE has developed a program for setting up resource monitoring stations across India that would provide data on ground level radiation. ADB is also in discussions with MNRE and Solar Energy Corporation of India to set up innovative concentrated solar power projects.

10. Wind power has proven to be commercially viable in recent year. Capacity addition is expected to be sensitive to changes in the financial incentive mechanism available to set up wind power projects. One significant challenge is of addressing the impact of intermittent wind generation on the transmission network. In order to stabilize the fluctuating power flows generated by renewable energies particularly wind and solar, ADB will provide support for the adoption of smart grid technologies through (i) provision of technical assistance to formulate long-term road map and (ii) promotion of technology transfer and private sector participation through the formulation of PPP knowledge platform such as the Regional Task Force (RTF) and Asia Solar Energy Forum. ADB has supported the transmission utility to develop a roadmap to meet the challenges of integrating intermittent generation into the grid and will support the implementation including physical investments, software procurement and capacity development over the course of the Investment Program.

11. Financing available through ADB (from OCR and CTF) would provide a catalytic role to support the development of the transmission network and renewable energy technologies in Western Rajasthan including reduction of the risks and addressing technical challenges associated with the development of large scale renewable energy projects.

## **B. Strategic Context**

12. The Road Map and Investment Program are consistent with India's, as well as with ADB's development goals and strategies. India's 11th Five Year Plan includes increased infrastructure investment as a key for promoting broad-based economic growth, and advocates expanded use of renewable energy resources to increase energy security and improve energy efficiency in the economy. The approach paper for the 12<sup>th</sup> Five Year Plan (2012-2017) brings out the need to invest in renewable energy technologies and frontier technologies such as smart grids. ADB's 2009 Energy Policy includes increasing energy security needs and facilitating a transition to low carbon economies by promoting increased renewable energy in the region's energy mix. The Road Map and Investment Program are consistent with ADB's Country Partnership Strategy (2013-2017) which supports renewable energy development, expanded transmission systems and institutional strengthening.

13. ADB launched the Asia Solar Energy Initiative (ASEF) in May 2010 to facilitate 3000 MW solar power generation through innovation financing and promotion of private sector participation with development of knowledge platform, i.e., Asia Solar Energy Forum (ASEF). The Investment Program in Rajasthan would support to accelerate the development of solar energy in India.

### **C. Policy Framework**

14. The Electricity Act 2003 is the main legislation for the Indian power sector. The Electricity Policy supports the development of renewable energy by allowing regulatory commissions to set renewable procurement obligations. The IEP 2006 identified the requirement to scale up renewable energy technologies as a key pillar for energy sector development. In 2008, the government of India announced a National Action Plan on Climate Change (NAPCC) and identified 8 national missions to achieve national growth and poverty alleviation while ensuring ecological sustainability. In 2010, the government of India launched Jawaharlal Nehru National Solar Mission (JNNSM) to create an enabling framework for deployment of 20,000 MW of solar power by 2022. The twelfth five year plan (2012-2017) targets nearly 4,000 MW of solar power and 11,000 MW of wind power nationally. An accelerated plan has been prepared by Ministry of New and Renewable Energy that seeks to support the development of nearly 5,700 MW by the end of the 12<sup>th</sup> Plan period (by 2018) in Rajasthan based on higher targets planned under the JNNSM. In 2010, the National Tariff Policy (NTP) was amended to facilitate investments in renewable energy projects by allowing preferential tariffs.

15. In India, the regulators at the central and state level are specifying minimum renewable purchase obligations (RPO) for power distribution companies. Presently, the RPOs are about 3% of the total power requirement. This will be gradually enhanced to 15% by the year 2022<sup>6</sup>. There is a specific provision of solar RPO with a target of 3% for distribution companies by 2022. Targets have similarly been set for wind energy by state regulators. The development of the renewable energy certificate (REC) mechanism has supported the establishment of a marketplace and would support the achievement of the 12<sup>th</sup> Five Year Plan targets. The JNNSM mentions the solar park approach to support large scale solar power development in a cost-effective manner. To address evacuation challenges and the need for development of a smart grid to, among other requirements evacuate large scale renewable energy generation, the government is developing a comprehensive plan including a smart grid roadmap and interoperability standards.

16. At the state level, Rajasthan in its solar policy 2011 has committed to the development of the state as a solar hub by supporting the development of 10,000 MW of solar power over a 10 year period.<sup>7</sup> Under the solar policy, bidding for 100 MW for Rajasthan distribution companies took place in early 2013. Annual procurement of 200 MW is to be carried out at the solar park by RREC. Procurement of nearly 1200 MW of wind power is expected by 2016. The Rajasthan Electricity Regulatory Commission is responsible for regulating the state power sector including the transmission and distribution companies. A policy to support renewable energy manufacturing in Rajasthan is also being developed.

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<sup>6</sup> National Action Plan on Climate Change

<sup>7</sup> Wind policy was approved in 2012

Table 2: Policy and Institutional Effectiveness Framework

Objective	Action/Description	Institution Responsibility	Planned
<b>Technical sustainability</b>			
Development of transmission infrastructure in Rajasthan that provides reliable evacuation to the national grid while addressing typical energy transmission integration issues.	Periodic assessment of adequacy of transmission network to evacuate high levels of wind and solar to the national grid  Roadmap for renewable energy integration into the transmission grid in Rajasthan	RRVPNL in association with CEA.	Regular review on transmission investment requirements for intra-state and inter-state transmission and updates to investment plan (Initial report has been finalized in 2012 and to be updated periodically)  Roadmap to be implemented in coordination line with state and regional roadmaps starting 2013.
Configuring new renewable energy technologies for demonstration	Demonstration of utility scale CSP technology in India	GOR in discussion with MNRE, SECI	CSP projects under JNNISM to be commissioned starting 2013 in Rajasthan. Tendering for CSP projects at identified sites in Bhadla solar park, Rajasthan to commence after clearances.
<b>Improving Institutional Effectiveness and Governance</b>			
Timely implementation of RE projects in Rajasthan	Decision making for coordination of RE projects Support implementation of the park approach	RREC, RSPDCL, RRVPNL  RREC, RSDCL	State level empowered committee setup in 2011 to coordinate on development of generation projects Bhadla solar park Phase - 1 to be operational by 2014
Improving utility's ability to manage electricity to the transmission system	Mapping to manage growing asset base and for regulatory compliance Operational management of newly developed transmission and integration infrastructure	RRVPNL	Review effectiveness of GIS based asset mapping by Q4 2014 and implementation after in subsequent tranches.  Support training and capacity building under roadmap over 2013-2016

Objective	Action/Description	Institution Responsibility	Planned
<b>Financial Viability</b>			
Improvement in the financial situation of the sector in Rajasthan	Allow cost recovery in the sector in the context of the financial restructuring program including addressing legacy restructuring issues.	RRVPNL, GOR	Financial Restructuring Program for RRVPNL to be finalized not later than 30 September 2014
	Procurement of RE power in a cost effective manner	RREC, Distribution Companies	Periodic reverse based bidding for RE in Rajasthan to be done in stages starting 2013
	Cost recovery of investments (solar park related)	RSDCL	Development Charges from the private investors collected by RSDCL starting 2013
<b>Policy and Regulatory Framework</b>			
Enabling policy and regulatory framework to support renewable energy development and achieve grid parity sooner than 2020	Setting targets for solar and wind energy procurement. Supporting the development of renewable energy parks (particularly for solar energy)	GOR in coordination with RREC GOR in coordination with MNRE and RREC	Target of 10,000 MW of solar to be developed in Rajasthan by 2022 under state and central government schemes. Atleast 1200 MW of wind to meet Rajasthan distribution company requirements by 2015. 200 MW of solar power to be procured at the Bhadla solar park annually starting 2014. Renewable procurement obligations for review period to be set by the regulator for the period after 2014.
	New policy to catalyze development of wind power	GOR	Facilitation including incentives for projects in solar parks under Solar Policy 2011 approved by 2014. Wind policy finalized in 2012

	Support for manufacturing of renewable energy components in Rajasthan	GOR, MNRE	RE manufacturing policy to be finalized by Government.
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Objective	Action/Description	Institution Responsibility	Planned
<b>Private Sector Development</b>			
Providing an investment climate and commercial framework that supports development of renewable energy projects	Conducting resource mapping for RE	RREC in coordination with MNRE	Ground based resource mapping program to be rolled out starting 2013
	Development of land banks for solar and wind	RREC in coordination with GOR	Land identified in Bhadla, Jaisalmer, Bikaner etc. for RE development over the next 10 years
	Improvements in the commercial framework	RREC	Standardized PPA and risk sharing arrangements for renewable energy projects by 2013
<b>Community development</b>			
	Electricity access in un-electrified household in Rajasthan	GOR in coordination with MNRE and Distribution Companies	Grant financed scheme to electrify 20,000 remote households per year under the 12 <sup>th</sup> Plan.
	Improving community services in the areas adjacent to renewable energy parks in Western Rajasthan	RREC	Environment and social development framework for RE projects by 2014 Operationalization of Community Development Fund by 2014

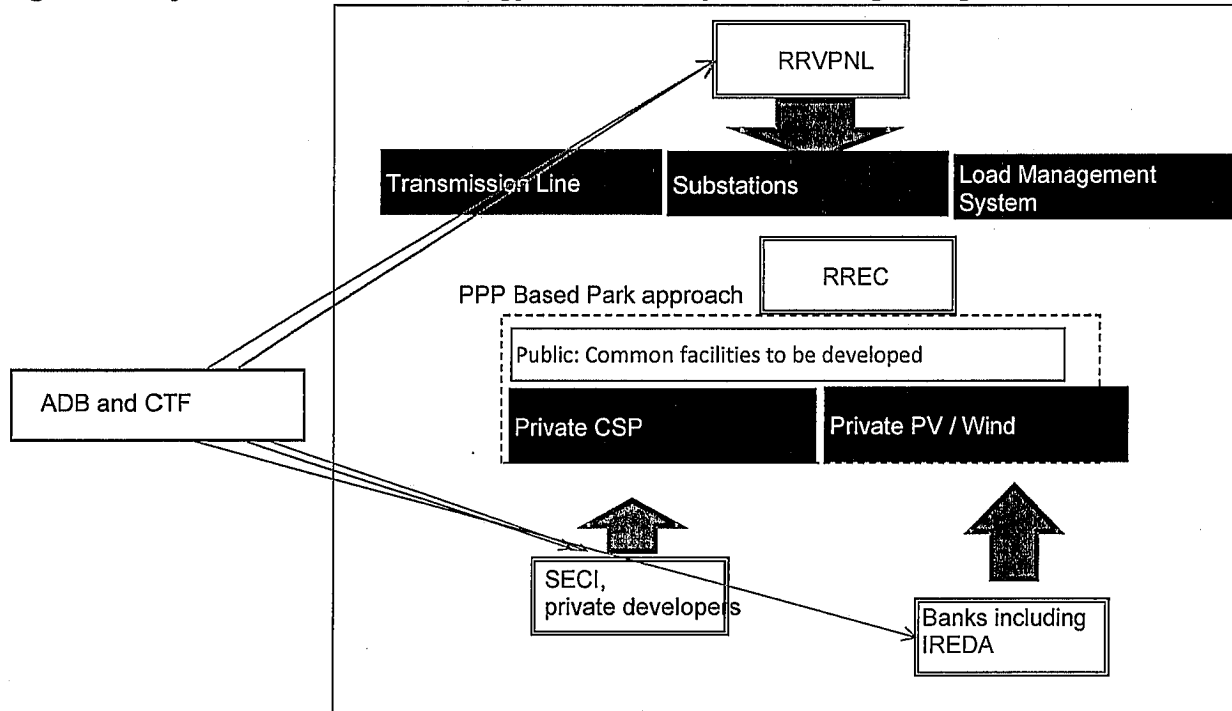
GoR = Government of Rajasthan, GoI = Government of India, MNRE = Ministry of New and Renewable Energy, MW = megawatt, PPA = power purchase agreement, RE = renewable energy, RREC = Rajasthan Electricity Regulatory Commission, RREC = Rajasthan Renewable Energy Corporation, RRVPNL = Rajasthan Vidyut Prasaran Nigam Limited, RSDCL = Rajasthan Solarpark Development Company Limited, SECI = Solar Energy Corporation of India Limited.

**D. Investment Program**

**Physical Investment**

17. In the case of Rajasthan, the state's renewable energy investment plan for the green grid includes solar and wind power generation in parks, transmission, smart grid, associated infrastructure and community development. Generation investments include pilot concentrated solar power (CSP) plants to be led by the Solar Energy Corporation of India Limited (SECI), wind and solar generation plants financed by local banks including the Indian Renewable Energy Development Agency (IREDA). The Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRVPNL) is mandated to evacuate all electricity produced in the state, including renewable energy produced in the solar and wind parks. Rajasthan further supports the program through provision of land and common facilities such as water supply and access roads. The overall investment plan for renewable energy development in the state amounts to nearly \$11 billion over the 5 year period of which nearly \$10 billion would be from the private sector components (mainly generation) while over \$ 1 billion would be from the public sector (mainly transmission).<sup>1</sup>

**Figure 1: Rajasthan renewable energy investment plan for the green grid**



<sup>1</sup> Refer Schedule 1, Section A on Roadmap.

18. In Western Rajasthan, the investment plan for renewable energy amounts to nearly 5,700 MW of wind and solar power generation by 2018 including about 1,000 MW at the Bhadla solar park. The transmission investment program of \$ 800 million would support development of transmission infrastructure and program management. The transmission and program management costs over 2013-2016 (Tranche 1 project) is expected at about \$ 277 million.

19. At Bhadla, the Rajasthan Renewable Energy Corporation will develop the solar park in the Western Rajasthan. Phase 1 of the Bhadla solar park covers nearly 3000 hectares. Government agencies will facilitate land acquisition and development of common facilities including water, roads, transmission etc. It is expected that private sector independent power producers (IPPs) would setup in this park.

20. The Investment Program provides a multitranche financing facility to support the development of the transmission network to evacuate the power expected to be generated from solar and wind projects to be setup under the investment plan in an effective and reliable manner. Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRVPL) would develop the transmissions, substations, and other infrastructure components with smart grid technologies including, (i) elements of weather forecasting and predicting systems, (ii) real time control of the network, (iii) voltage stabilizing equipment with advanced technologies, (iv) energy storage, as required and (v) communication and monitoring systems.

### Non-Physical Investment

21. The physical investment in generation and transmission would be supported by institutional capacity development in RRVPL and RREC to support project monitoring, implementation, preparation of subsequent tranches, specialized capacity building and reporting as well as community development in the area around the renewable energy parks. Project implementation and associated costs on the public sector investments would be borne by the utility as per the regulations of RERC and recovered through tariff. Community development efforts would be funded under the Community Development Fund set up by RREC. In addition, government supported electrification programs are also expected to improve living conditions in such areas. Support would be provided through the piggy back TA on pilot projects and for technical aspects.<sup>2</sup> The investment plan is indicated in Table 3.

**Table 3: Rajasthan renewable energy investment plan (2012-2018)**

Investment Plan (Billion \$)	2012 to 2018
Renewable energy generation	9.5
Regional transmission infrastructure	0.6
State transmission infrastructure	0.8
Other related infrastructure	0.3
<b>TOTAL</b>	<b>11.2</b>

Source: Estimates based on MNRE studies in 2012 and Asian Development Bank estimates

### E. Financing Plan

<sup>2</sup> Supported through ADB. 2011. Technical Assistance for *Smart Grid Development in South Asia*. Manila and CTF grant TA.

22. The financing plan for the overall investment plan and the Investment Program are in Table 4. Clean Technology Fund has endorsed Government of India's CTF Investment Plan that includes \$ 200 million to support infrastructure for solar power parks in Rajasthan and this will be considered joint co-financing with ADB. The financing support from a blend of funds from ADB's ordinary capital resource and CTF financing will enable the Investment Program to be completed in a timely manner and enhance private sector development for renewable power generation and support achievement of national targets for power generation from renewable energy.

**Table 4: Rajasthan renewable energy financing plan (2012-2018)**

<b>Tentative Financing Plan (Billion \$)</b>	<b>2012 to 2018</b>
Private renewable energy sponsors	2.9
Renewable energy lenders	6.8
Inter-state transmission utility (Debt, Equity, Internal)	0.6
RRETIP (MFF)	0.8
Other Government Support	0.1
<b>TOTAL</b>	<b>11.2</b>

Source: Estimates based on MNRE studies in 2012 and Asian Development Bank estimates



## SCHEDULE 2 - 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> Accelerated development of renewable energy sources in Rajasthan/India.</p>	<p><b>National</b> Grid connected solar power generation capacity across India to increase to at least 20,000 MW by 2022 (2012 Baseline: 500 MW) Renewable energy procurement targets met by 2022 (2012 Baseline: limited compliance)</p> <p><b>Rajasthan</b> Grid connected solar power generation capacity to increase to 10,000 MW by 2022 and over 4,000 MW of wind by 2018 (2011 Baseline: About 45 MW for solar and 1,767 MW for wind)</p> <p>Avoidance of carbon emission on account of renewable energy projects in Rajasthan approx. at least 5.4 MT annually 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<sup>B</sup></p>	<p><b>Assumptions</b> Successful development of the bulk transmission system supports renewable generation development in Rajasthan and provide a replicable model for other states in India.</p> <p>A combination of support measures including effective implementation of renewable purchase obligations, penalties for non-compliance, feed in tariffs, further deepening of the renewable energy certificate market would support solar and wind energy development.</p>
<p><b>Outcome</b> Cleaner electricity mix with more efficient and effective generation and transmission system</p>	<p>Transmission network capacity expanded to transmit up to 8000 MW of renewable power generation in Rajasthan by 2018 (2011 Baseline: About 1800 MW) Institutional capacity in RRVPNL to operate high penetration solar and wind power generation in Rajasthan developed by 2018 (2012 Baseline: Limited)<sup>3</sup> Private sector led renewable energy projects developed in solar and wind parks in Rajasthan (2011 Baseline: None)</p>	<p>RRVPNL Annual Reports</p> <p>RRVPNL Annual Reports</p> <p>RREC Annual Reports</p>	<p><b>Assumptions</b> Up to 5700 MW of grid connected solar and wind generation is set up in Rajasthan in a timely manner under NSM, GoR policy by 2018.</p> <p>Last mile transmission, inter-state transmission and other infrastructure as required by the developer to be completed. Key aspects of the agreed roadmap to integrate renewable energy are met.</p> <p><b>Risks</b> Expected growth in</p>

<sup>3</sup> To be supported through ADB. 2011. Technical Assistance for *Smart Grid Development in South Asia*. Manila

<b>Design Summary</b>	<b>Performance Targets and Indicators with Baselines</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Assumptions and Risks<sup>a</sup></b>
			generation capacity does not match the increase in transmission capacity.

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks <sup>a</sup>
<p><b>Outputs</b></p> <p>1. Bulk power transmission system in Rajasthan expanded.</p> <p>2. Institutional capacity for renewable energy parks and transmission system developed.</p>	<p>Construction of 3 400/220/132 kV Grid Substation (GSS) at Bhadla, Ramgarh, Jaisalmer associated automation and control infrastructure, and 9 220/132 kV GSS at Bap, Kanasar, Chhatrail, Pokaran, Kolayat, Ramdev Nagar, Badisid, Aau and Bajju by 2018 by RRVPNL</p> <p>Augmentation of 4 400 kV GSS at Akal, Jodhpur, Barmer, Bikaner and upgradation of PS 2,3,4 to 132 kV GSS by 2018 by RRVPNL</p> <p>Construction of approx. 1440 km. of 400kV, 355 km. of 220 kV, 57 km. of 132 kV by 2018 by RRVPNL</p> <p>Timely preparation, procurement, supervision, implementation, monitoring and reporting of the Program including GIS based asset accounting, renewable energy integration studies by 2015</p> <p>Community development policy for renewable energy park by 2014 (including gender indicators and targets)</p> <p>Technical studies for Bhadla solar park Phase 2 by 2015.</p>	<p>RRVPNL Annual Report</p> <p>RRVPNL Annual Report</p> <p>RRVPNL Annual Report</p> <p>RRVPNL Annual Report</p> <p>RREC Annual Report</p> <p>RREC Annual Report</p>	<p><b>Assumptions</b></p> <p>Counterpart funds for timely project implementation are made available from Gol, GoR and RRVPNL.</p> <p>Approval of contract awards by the relevant authorities is timely.</p> <p>Land acquisition, right of way, environmental and social clearances as well as approvals for construction of transmission lines are timely.</p> <p><b>Risks</b></p> <p>Increase in the prices of equipment and materials exceeds contingency and inflation forecasts.</p> <p><b>Assumptions</b></p> <p>RREC will coordinate with government departments to support timely project implementation</p> <p>Technical assessment of the solution undertaken prior to any pilot</p>

	<p>Skills training interventions to about 20 women led self-help groups and community based organizations including training in animal husbandry and livelihoods by 2015 with RREC</p>	<p>RREC Annual Report</p>	
	<p>About 400 women and girls trained in health, nutrition and hygiene by 2015 with RREC</p>	<p>RREC Annual Report</p>	
	<p>Pilot community models for renewable energy based water supply to benefit about 200 families by 2015 with RREC</p>	<p>RREC Annual Report</p>	
	<p>Training for about 15 CSR champions within RREC, RSPL, RRVPNL and other stakeholders in GOR (including 50% women) by 2015</p>	<p>RREC Annual Report</p>	

Activities with Milestones	Inputs
<p><b>Project 1 – Creation/augmentation of pooling substation and associated infrastructure, identified transmission lines</b></p> <p>1.1 Procurement of major equipment: Issuance of bidding documents commenced from Q2 2013 and contract awards to commence from Q1 2014</p> <p>1.2 Construction started by Q2 2014</p> <p>1.3 Commission by Q2 2016</p>	<p><b>Loan</b></p> <p><b>ADB OCR: \$ 300 million</b></p> <p><b>ADB CTF: \$ 198 million</b></p> <hr/> <p><b>Government of Rajasthan (including RRVPNL): \$ 300 million</b></p>
<p><b>Project 2 – Creation/augmentation of existing substations and development of identified transmission lines</b></p> <p>2.1 Procurement of major equipment: Issuance of bidding documents to commence from Q2 2014 and contract awards to commence from Q4 2014</p> <p>2.2 Construction started by Q1 2015</p> <p>2.3 Commission by Q1 2017</p>	<p><b>Technical Assistance Grant from ADB CTF: \$ 2.0 million</b></p>
<p><b>Project 3 – Construction of remaining infrastructure</b></p> <p>3.1 Procurement of major equipment: Issuance of bidding documents to commence from Q2 2015 and contract awards to commence from Q4 2015</p> <p>3.2 Construction started by Q1 2016</p> <p>3.3 Commission by Q1 2018</p>	

ADB = Asian Development Bank, CTF = Clean Technology Fund, DC = double circuit, EA = Executing Agency, GoR = Government of Rajasthan, GoI = Government of India, GSS = grid substation, kV = kilo Volt, MW = megawatt, RERC = Rajasthan Electricity Regulatory Commission, RREC = Rajasthan Renewable Energy Corporation, RRVPNL = Rajasthan Rajya Vidyut Prasaran Nigam Limited

Source: Discussions during March 2013 mission with RRVPNL and Government of Rajasthan

<sup>A</sup> ADB estimates based on the renewable energy capacity addition plan of Rajasthan.

<sup>B</sup> Annual RE capacity addition to be sourced from RREC Annual Reports.



## SCHEDULE 3

### IMPLEMENTATION FRAMEWORK

1. Unless otherwise stipulated in any of loan or project agreements under the Facility, the Facility shall be implemented as follows:

#### Implementation Arrangements

2. India will cause the State and through the State the RRVPNL to implement the projects under the Facility in conformity with the requirements of this FFA and the Facility Administration Manual/Project Administration Manual as the case may be as stipulated in the loan and project agreements for each project under the Facility.

3. The State through its Energy Department, and the Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRVPNL), will be the executing agencies (EAs) RRVPNL for the Facility, and will be responsible for supervising subproject implementation and monitoring of subproject operational performance. For these purposes, RRVPNL will establish a Project Management Unit (PMU) headed by a project director, and located at RRVPNL's headquarters in Jaipur, Rajasthan, though also with staff located in the field at project sites for implementation for e.g. at RRVPNL field office in Jodhpur.

4. The PMU will employ sufficient staff for the duration of the Investment Program with adequate and relevant expertise in the field of project management, financial management, engineering, construction supervision, procurement, equipment inspection and testing, and environmental and social safeguards implementation. The PMU will be equipped with the necessary office space, facilities, equipment, support staff and management information systems for the entire duration of the Investment Program. To the extent reasonably possible, the same persons must be assigned to key positions in the PMU for the entire duration of the Investment Program.

5. The State and RRVPNL will arrange for adequate counterpart funding for the timely implementation of the projects including, without limitation, any funds required to meet additional costs arising from design changes, price escalation in construction costs and/or unforeseen circumstances. RRVPNL and the State will provide, as necessary, respective counterpart staff, land, facilities, the cost of making land available, and assistance, and implementation and monitoring under the IEE/EIA, (including cost of EMP and mitigating unforeseen environmental impacts, beyond the estimates), RP and IPDP, utility relocation, general management expenses, in a timely manner.

6. Subject to the provisions of this FFA, the State will make the proceeds of individual loans available to RRVPNL promptly, on terms and conditions mutually acceptable to India and ADB. India shall cause the State to submit the Onlending Agreement to India and ADB within one month from the Effective Date.

#### Performance Monitoring, Review and Progress Reports

7. ADB will field an inception mission within 3 months of the approval of the Facility. ADB will review the implementation and operation of the Facility based on the quarterly progress reports and meet with State and RRVPNL on semi-annual basis to discuss the progress of the

individual projects and any changes to implementation arrangements or remedial measures required to be undertaken towards achieving the objectives of the projects, and the Facility under the Investment Program.

8. The PMU will establish, for the Facility as well as for each Project, a project performance monitoring system as required by ADB. The performance reports for each project will be compiled for preparing Facility level performance reporting.

9. The PMU will prepare progress reports for respective projects under the Facility and submit these to ADB on a quarterly basis within 30 days from the end of each quarter. Each report will provide a narrative description of progress made during the period in respect the project, changes in the implementation schedule, problems or difficulties encountered, and the work to be carried out in the next period. The progress report will also include project expenditures for the year to date and total expenditure to date. RRVPNL shall undertake periodic project performance review under each project, as also for the Facility to evaluate the scope, implementation arrangements, progress and achievements of objectives of the related project and the overall Facility. Performance shall be evaluated based on indicators and targets stipulated in the Design and Monitoring Framework for the Facility and individual projects.

10. A midterm review shall be carried out 2 years after the loan effectiveness for each project as also for the Facility focusing on all aspects including but not limited to the engineering, resettlement, environmental and social aspects, and reviewing the financial status of RRVPNL. The review will allow for any necessary midcourse corrections to ensure successful project implementation and achievement of objectives of the overall Facility and the Investment Program.

11. RRVPNL will furnish to ADB a project completion report within 3 months of physical completion of each related project, and Facility completion report within 3 months of physical completion of the Facility. These reports will cover a detailed evaluation of projects and the Facility respectively, covering the design, costs, contractors' and consultants' performance, social, environmental and economic impact, economic rate of return, and other details for each project and the Facility as may be requested by ADB.

#### Audit and Accounting

12. For each Project

(a) RRVPNL will (i) maintain separate accounts and records; (ii) prepare annual financial statements in accordance with accounting principles acceptable to ADB; (iii) have such financial statements for the Project audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national equivalent acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report (which includes the auditors' opinion on the use of the Loan proceeds and compliance with the financial covenants of relevant Loan Agreement as well as on the use of the procedures for the imprest account(s) and statement of expenditures) and a management letter (which sets out the deficiencies in the internal control of the Project that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 9 months after the close of the fiscal year to which they relate, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request;



(b) ADB will disclose the annual audited financial statements for the Projects under the MFF and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website

(c) In addition to annual audited financial statements referred to in subsection (a) hereinabove, RRVPNL will (i) provide its annual financial statements prepared in accordance with national accrual-based financing reporting standards acceptable to ADB; (ii) have its financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national equivalent acceptable to ADB; and (iii) furnish to ADB, no later than 1 month after approval by the relevant authority, copies of such audited financial statements in the English language and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request;

(d) RRVPNL will enable ADB, upon ADB's request, to discuss the financial statements for the Project and RRVPNL and its financial affairs where they relate to the Project with the auditors appointed by RRVPNL pursuant to subsections (a)(iii) and (c) hereinabove, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such discussions will be conducted only in the presence of an authorized officer of RRVPNL, unless RRVPNL will otherwise agree.

#### Disbursement

13. India will provide the ADB loan proceeds under each project to the State and through the State to RRVPNL and will cause the proceeds to be applied to the financing of expenditures on the subprojects and the capacity development component in accordance with the conditions set forth in this FFA and the legal agreements for each tranche. The State will onlend funds to RRVPNL under terms mutually acceptable to the India and ADB.

14. The Loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time), and detailed arrangements agreed upon between the India, the State, and ADB.

#### Subprojects Implementation

15. The State through RRVPNL will ensure that the subprojects are evaluated and selected in accordance with the criteria set out in the Schedule 4 to this FFA and implemented in accordance with the procedures set out under this FFA and the Facility Administration Manual or Project Administration Manual as the case may be. All documents forming the basis for screening, selection and processing of subprojects will be made available to ADB upon request and will be kept available for such purposes for a minimum period of five years from the date of the relevant project completion report for each project under the Facility.

16. The State through RRVPNL will ensure that civil works contracts under the Projects follow all applicable labor laws of India and the State and that these further include provisions to the effect that contractors; (i) carry out HIV/AIDS awareness programs for labor and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction; and (ii) follow and implement all statutory provisions on labor (including not employing or using children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions. Such

contracts will also include clauses for termination in case of any breach of the stated provisions by the contractors.

17. The State through RRVPNL will ensure that all bidding documents and contracts include the anticorruption provisions mutually agreeable to ADB and RRVPNL, including provisions specifying the right of ADB to audit and examine the records and accounts of the executing and implementing agencies and all contractors, suppliers, consultants, and other service providers as they relate to the Projects.

18. The State will ensure that the subprojects under each project are undertaken in conformity with the Gender Action Plan and the Consultation Plan as agreed between ADB, India, and the State as listed in the Facility Administration Manual.

19. The Executing Agency will ensure that the Rajasthan Renewable Energy Capacity Development and Implementation Support technical assistance is implemented in a timely manner.

## SCHEDULE 4

### SELECTION CRITERIA AND APPROVAL PROCESS FOR SUBPROJECTS

#### A. Selection Criteria

The initial selection and preparation of subprojects will be the responsibility of RRVPNL will be further subject to ADB's approval of each subproject as provided in section B below. The selection criteria will be as follows.

- (i) the subproject is consistent with and forms part of the State approved transmission evacuation plan to support renewable energy evacuation from the State based on best practice design, construction, operations and maintenance in a cost effective manner;
- (ii) the subproject is consistent with and forms part of the renewable energy integration roadmap for Rajasthan adopted by RRVPNL;
- (iii) the subproject displays performance-based design consistent with international benchmarks for system efficiency and operational risks;
- (iv) the subproject will be economically viable and financially sustainable;
- (v) the location of the subproject will be as agreed between State, RRVPNL and ADB;
- (vi) a poverty and social assessment will be conducted for the subproject and results presented in ADB's Summary Poverty Reduction and Social Strategy (SPRSS) format;
- (vii) the subproject is prepared and designed in compliance with this FFA (including ADB's Social and Safeguard Requirements set forth in Schedule 5 to the FFA) and detailed herein;
- (viii) a resettlement plan (RP) that meets the requirements of ADB's *Safeguard Policy Statement (2009)*, India's and State's applicable laws and regulations, as set out in the resettlement framework (RF) referred to in Schedule 5, has been prepared for the subproject and submitted to ADB for review;
- (ix) an environmental impact assessment (EIA) or an initial environmental examination (IEE) (as the case may be) and an environmental management and monitoring plan (EMP) that meet the requirements of ADB's *Safeguard Policy Statement (2009)*, India's and State's applicable laws and regulations, as set out in the Environmental Assessment and Review Framework (EARF) referred to in Schedule 5, have been prepared for the subproject and submitted to ADB for review; provided that in case of environment category A subproject, the EIA will require to be made available to the public 120 days before ADB consideration of related subproject for approval;
- (x) as required, an indigenous people plan (IPP) that meets the requirements of ADB's *Safeguard Policy Statement (2009)*, India's and State's applicable laws and regulations, as set out in the indigenous people planning framework (IPPF) referred to in Schedule 5, has been prepared for the subproject and submitted to ADB for review;

- (xi) sufficient counterpart funding has been allocated by the State as required to implement the subproject as scheduled and maintain the project facilities in accordance with the requirements of the FFA; and
- (xii) all necessary approvals of India and the State have been obtained.

## **B. Approval Process**

The approval procedures will be as follows:

- (i) RRVPNL will prepare the subproject proposals in compliance with the selection criteria.
- (ii) RRVPNL and ADB will maintain contact through periodic review missions and quarterly progress reports, and in doing so may include advanced consultation on PFRs prior to submission to ADB for ADB's formal approval.
- (iii) The State, through RRVPNL, will prepare a PFR based in a format agreed with ADB to finance the subprojects and submit to India for submission to ADB.
- (iv) The PFR will be forwarded by India for review and submission to ADB for its consideration.

## SCHEDULE 5

### SOCIAL DIMENSIONS AND SAFEGUARD REQUIREMENTS

1. India will ensure that all the requirements prescribed in this Schedule, and the following safeguard frameworks and plans that have been prepared with respect to the Facility and the first tranche and of which ADB has been provided full copies, and which are deemed incorporated herein by reference, are complied with during the processing and implementation of the projects under the Facility.

- (i) environmental assessment and review framework (EARF), dated May 2012,
- (ii) resettlement framework (RF), dated May 2012,
- (iii) indigenous peoples framework (IPF), dated May 2012, and
- (iv) the initial environment examination (including the environmental management plan) dated May 2012 for tranche 1,
- (v) the resettlement plan, May 2012 for tranche 1; and
- (vi) the Gender Action Plan and Consultation and Participation Plan dated May 2012.

2. The frameworks cover the Facility-specific information and requirements in accordance with ADB's safeguard policies: (i) the general anticipated impacts of the components or projects likely to be financed under the MFF on the environment, involuntary resettlement, and indigenous peoples; (ii) the safeguard criteria that are to be used in selecting components, projects; (iii) the requirements and procedure that will be followed for screening and categorization, impact assessments, development of management plans, public consultation and information disclosure (including the 120-day disclosure rule, if required), and monitoring and reporting; and (iv) the institutional arrangements (including budget and capacity requirements) and the client's and ADB's responsibilities and authorities for the preparation, review and clearance of safeguard documents.

3. Prior to the preparation of each PFR, the applicability and relevance of each safeguard framework for environmental assessment, involuntary resettlement, and indigenous people will be reviewed by ADB, India, State, RRVPNL and updated to ensure relevance and consistency with applicable country legal frameworks and ADB's safeguard policies, as amended from time to time.

4. In all cases, for each new PFR preparation, India, the State and RRVPNL will review ongoing projects to check on the status of compliance with the safeguard plans and frameworks, and submit the review reports to ADB, together with other required safeguard documents relevant to the projects included in the tranche being processes. In any case if major noncompliance is discovered in the course of the review of ongoing projects, a corrective action plan will be prepared by the State and RRVPNL and submitted to ADB.

## SCHEDULE 6

### UNDERTAKINGS

India will ensure, and will cause the State and RRVPNL to ensure following:

1. RRVPNL submits to Rajasthan Electricity Regulatory Commission ("RERC"), tariff petitions in a timely manner prior to commercial operation of projects, as the case may be, under the Investment Project
2. In relation to the projects RRVPNL will recruit or redeploy and maintain key personnel for its Project Management Unit as laid down in the Facility Administration Manual/Project Administration Manual, as updated from time to time in consultation with ADB.
3. A Steering Committee would be setup by the State to ensure coordinated development of the transmission system, generation capacity addition program and the construction of solar and wind parks in accordance with the state solar and wind policy including the bidding for procurement of about 1200 MW of wind power by 2015 and about 200 MW of solar power at the park annually.
4. India and the State will remain committed to, and monitor and enforce, the implementation of the Electricity Act, 2003, India's Jawaharlal Nehru National Solar Mission 2010, Rajasthan Solar Policy, 2011 and Rajasthan Wind Policy, 2012 (as amended from time to time).
5. By December 2014, the State will take initiatives to facilitate setting up solar and wind power parks including the development of an environment and social framework and also in this regard undertake relevant studies to examine the required policies and relevant policy environment conducive to solar and wind power equipment manufacturing.
6. The State will take all steps necessary towards linking and integrating generation (including wind and solar power) and transmission activities in the State to ensure adequate and timely commissioning and functioning of the transmission lines under the projects under the Facility. In particular the State will enter into the state support agreement to host the concentrated solar power demonstration project in Bhadla, Rajasthan on a timely basis.
7. The State will ensure that RRVPNL conducts the required studies under the CTF TA grant by 2015 and implements a roadmap on renewable energy integration (including but not limited to energy management centers, communication systems, modifications in grid code and related regulations, capacity building of RRVPNL staff) in the state.
8. Towards smooth implementation of the projects under the Facility, grievance(s) if any from stakeholders, relating to subproject implementation or use of funds will be addressed effectively and efficiently.
9. The anticorruption provisions acceptable to ADB, India, and the State are included in all bidding documents and contracts financed by ADB in connection with projects under the Facility, including provisions specifying the right of ADB to review and examine the records and accounts of the State and RRVPNL and all contractors, suppliers, consultants, and other service

providers as they relate to the projects. India, the State, and RRVPNL will allow and assist ADB's representatives to carry out random spot checks on the work in progress and utilization of funds for the projects under the Facility.

10. RRVPNL will announce the projects and business opportunities associated with the projects including on its corporate website. The websites will disclose the following information in relation to goods and services procured for the Project: (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.

11. The State and RRVPNL will undertake the subprojects and projects under the Facility in accordance with the Safeguard frameworks and plans as included in Schedule 5 to this FFA that will be stipulated in greater detail under related legal agreements for each project under the Facility.

12. The State will provide an equity contribution of 20% of the capital cost to be incurred by RRVPNL for the Investment Program while RRVPNL will arrange for the remaining counterpart funds required.

13. India will transfer the proceeds from ADB and CTF on the same terms and conditions to the State of Rajasthan. The State of Rajasthan will pass on the proceeds of the loans from ADB and CTF on the same terms and conditions as received from India to RRVPNL.

14. RRVPNL will address the shortcomings identified by the statutory auditor in audit reports of RRVPNL by FY 2016, that will include but not be limited to (a) comprehensive revision of its accounting manual and chart of accounts; (b) training to relevant staff; and (c) revision and strengthening of the internal control procedures in this regard.

15. By no later than 30 September 2014, the State will finalize the financial restructuring plan of RRVPNL to ensure its long-term financial sustainability and progressively achieve a minimum debt service coverage ratio of 1.2 and debt equity ratio of 4:1 by 2017.

