

# Project Administration Manual

Project Number: 47100  
Loan Number: {LXXXX}  
September 2013

India: Madhya Pradesh Power Transmission and  
Distribution System Improvement Project

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## **Project Administration Manual Purpose and Process**

The project administration manual (PAM) 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 PAM includes references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Madhya Pradesh Power Transmission Company Limited (MP Transco) and the three power distribution companies - DISCOM-C (Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited), DISCOM-E (Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited), DISCOM-W (Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited) – 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 PAM and ensured consistency with the Loan<sup>1</sup> agreement. Such agreement is reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the PAM and the Loan Agreement, the provisions of the Loan 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 PAM.

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<sup>1</sup> The name of the operational financing document may vary on a project to project basis; this reference shall be deemed to encompass such variations, e.g., a Framework Financing Agreement, as applicable.

## Abbreviations

ADB	=	Asian Development Bank
ADF	=	Asian Development Fund
AFS	=	audited financial statements
DISCOM	=	distribution company
DMF	=	design and monitoring framework
EMP	=	environmental management plan
PAM	=	project administration manual
GOMP	=	Government of Madhya Pradesh
ICB	=	international competitive bidding
IEE	=	initial environmental examination
IPP	=	indigenous people plan
kV	=	Kilovolts
LIBOR	=	London interbank offered rate
MW	=	Megawatt
PAM	=	project administration manual
PMU	=	project management unit
RF	=	resettlement framework
RP	=	resettlement plan
RRP	=	report and recommendation of the President to the Board of Directors
SBD	=	standard bidding documents
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SPRSS	=	summary poverty reduction and social strategy
TOR	=	terms of reference

## I. PROJECT DESCRIPTION

### A. Project's rationale, location, and beneficiaries

1. The peak availability in the Madhya Pradesh (MP) power sector was 9,692 megawatt (MW) while the estimated unrestricted peak demand was 10,308 MW, resulting in an unmet demand of 616 MW in fiscal year (FY) 2012. Expansion of the distribution system is pivotal to meet the requirements of new power connections to households and increased consumption from existing customers driven by a rapid economic growth of the state.<sup>2</sup> Demand for electricity grew at 13.67% per annum during FY 2010-2012 and is predicted to grow over 11% per annum during FY2013-2017. By 2017, transmission and distribution (T&D) system should deliver about 7,000 MW of additional power to the customers.. The proposed investments in T&D aim at removing the existing bottlenecks and expansion of the T&D capacity to meet the growing demand.

2. Over the last 10 years, the transmission system has witnessed appreciable improvement with the Government of India (the government) and the Asian Development Bank's (ADB) support and now its capacity is adequate to meet the current requirements. The transmission company has already been able to bring down the transmission losses from 7.93% in FY 2003 to 3.30% in FY 2013 while the system availability is 99.44% as against the target of 98%. Further reduction in transmission system losses to around 3% and maintaining the current standards of reliability would mean investment for the transmission system strengthening in the state. The transmission company has prepared a detailed investment plan based on the technical studies and which has been approved by the state electricity regulatory commission. According to the approved transmission plan, around \$1,474 million is required for the 5 year period from FY 2013 to FY 2017. This includes construction of 10,667 circuit km of transmission lines and additional capacity of 19,698 mega volt ampere (MVA) for the extra high voltage (EHV) substations. Of the total, Madhya Pradesh Power Transmission Company Limited (MP Transco) has already invested \$574 million and Japan International Cooperation Agency (JICA) has provided a loan of \$200 million. The proposed ADB project undertakes about \$350 million worth investments identified in the five year plan.

3. The distribution system is still in growth phase and currently needs strengthening to meet the growing demand in the various regions. The state is committed to 24 hour power supply to households. In order to achieve this objective, three major programs are currently in implementation stage, namely: (i) the Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY), program aimed at providing 1.8 million new household connections; (ii) the Restructured Accelerated Power Development Reforms Program (R-APDRP), to improve electricity distribution infrastructure in urban areas; and (iii) the Feeder Separation Program to limit agricultural supply to 10 hours and to provide rural households with 24-hour power supply. On the supply side, the capacity additions are likely for both the state owned utilities and the independent power producers (IPPs) that have eventuated in the state as a consequence of its successful IPP policy. The state will also have its share in the central sector generating stations. The capacity addition target is around 9,700 MW by FY 2018 to meet the growth in the future demand. MP is predicted to have generation surplus from FY 2014 onwards.

4. The distribution companies (DISCOMs) have not been able to make profits mainly due to high technical and commercial losses. The cumulative state aggregate technical and

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<sup>2</sup> MP economy is growing at a faster rate compared to Indian economy since 2009. MP economy is predicted to grow at 10% in 2013 which is the highest amongst Indian states.

commercial (AT&C) losses for the distribution system has come down from 46%% in FY 2004 to 27.1% in FY 2013. By FY 2016, the targeted AT&C loss for the state would be around 17.3%. In order to achieve the FY 2016 target of AT&C loss reduction as well as to cater to the growing demand, the three DISCOMs in MP have collectively identified investments in various projects worth \$2,600 million during the period FY 2013 to FY 2017. The ongoing RGGVY, R-APDRP and Feeder Separation programs partially meet this requirement. The proposed project supports some selected distribution improvements included in DISCOMs' five year plans.

## **B. Impact and Outcome**

5. The impact of the project would be adequate and reliable power supply in MP. The project outcome would be increased capacity and operational efficiency in electricity transmission and distribution system in MP.

## **C. Outputs**

6. Project has three outputs: transmission system upgraded and expanded; distribution system upgraded and expanded; and capacity building for executing agency staff. Output 1 includes: (i) about 1,800 circuit-km of transmission lines; (ii) 2 new and 3 upgraded 400 kV substations; (iii) 4 new and 5 upgraded 220 kV substations; and (iv) 26 new 132 kV substations. Output 2 includes: (i) about 3,125 circuit-km of distribution lines installed; and (ii) 149 new and 328 upgraded 33/11kV substations.

7. Output 3 includes supporting DISCOM-C's training center to provide training for the executing agency (EA) staff in MP. The project will support the construction of hostels, laboratory and associated facilities, provide consultants to develop curricula for various training courses, educate the trainers and conduct the initial rounds of training. Training programs will include induction courses for new staff, and training on new technology, project management, procurement, monitoring and evaluation, financial management, and safeguards for existing staff. Ten training instructors and 100 EA staff will be trained with the support of the project.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

8. As per the project readiness agreement between the ADB and the Government: (i) project management units (PMUs) have been established and fully staffed in MP Transco, DISCOM-C, DISCOM-E, and DISCOM-W since 2007; Resettlement Plan and Initial Environmental Examination have been approved by GOMP and submitted to ADB; (iii) the detailed project report (DPR) has been approved by the Department of Energy, GOMP; and (iv) bidding documents for all packages have been reviewed by ADB and issued on 15 August 2013.

Indicative Activities	Months (2013)							Responsibility
	1 Jul	2 Aug	3 Sep	4 Oct	5 Nov	6 Jan	7 Mar	
Advance contracting actions	X							MP Transco & DISCOMs and ADB
Establish project implementation arrangements	X							MP Transco & DISCOMs
Loan negotiations				X				MOF, GOMP, and ADB
ADB Board approval					X			ADB
Government budget inclusion Loan				X				GOMP
Loan Signing						X		Government of India and GOMP
Loan Effectiveness							X	Government of India and GOMP

ADB = Asian Development Bank, DISCOM = distribution company, GOMP = Government of Madhya Pradesh, MOF = Ministry of Finance, MP Transco = Madhya Pradesh Power Transmission Company Limited

**B. Overall Project Implementation Plan**

Activities	2013		2014				2015				2016				2017				2018			
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>MP TRANSCO</b>																						
Preparation of Bidding Documents	■																					
Bidding and Contract Signing		■	■																			
Implementation & Commissioning			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
<b>DISCOM-C</b>																						
Preparation of Bidding Documents	■																					
Bidding and Contract Signing		■	■																			
Implementation			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
<b>DISCOM-E</b>																						
Preparation of Bidding Documents	■																					
Bidding and Contract Signing		■	■																			
Implementation			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
<b>DISCOM-W</b>																						
Preparation of Bidding Documents	■																					
Bidding and Contract Signing		■	■																			
Implementation			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Review							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
<b>Project Completion Report</b>																			■	■	■	■



### III. PROJECT MANAGEMENT ARRANGEMENTS

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

9. Executing Agencies. The Project will be implemented by the following EAs:

- (i) Madhya Pradesh Power Transmission Company Limited. (MP Transco);
- (ii) The Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited (DISCOM-C, central distribution zone of MP) will be the EA in the central area;
- (iii) The Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited (DISCOM-E, eastern distribution zone of MP) will be the EA in the eastern area, and
- (iv) The Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited (DISCOM-W, western distribution zone of MP) will be the EA in the western area.

10. Each EA has established a project management unit (PMU) to implement the project. During implementation, each PMU will conduct day-to-day project management including procurement, construction supervision, inspection, and testing of equipment, payments to contractors, monitoring and reporting of progress. The PMU manager will report directly to the Managing Director (MD) of MP Transco and each DISCOM.

11. A Project Oversight Committee comprising, Officer on Special Duty and Deputy Secretary MP Energy Department and MDs of the EAs had been established to monitor and coordinate the overall implementation of the Project. The committee will be chaired by Principal Secretary, MP Energy Department.

12. The EAs will provide as necessary, respective counterpart staff, facilities, and counterpart funding for related subprojects in accordance with the financing plan in a timely manner through approved annual budget allocations.

#### B. Key Persons Involved in Implementation

##### Executing Agency

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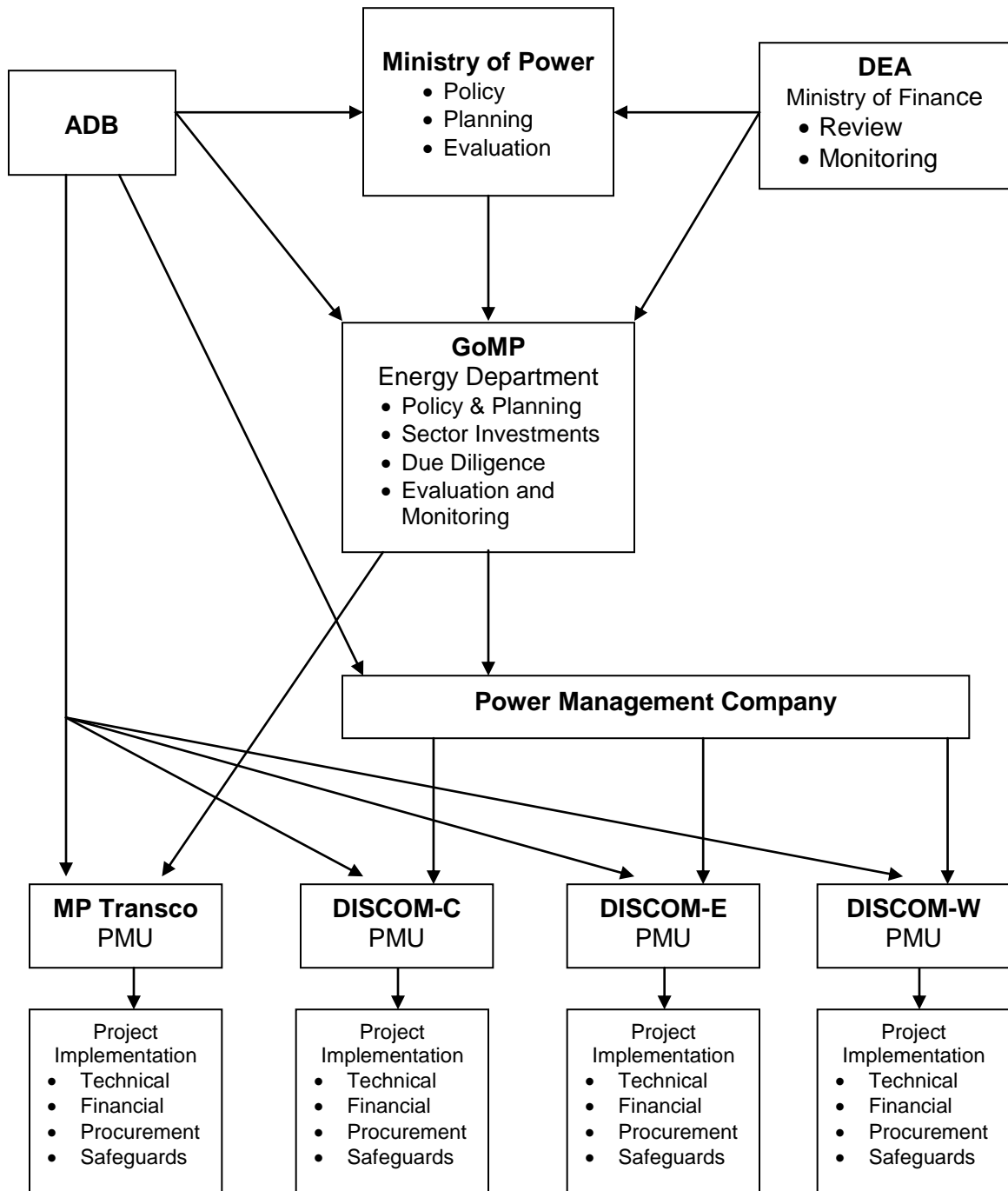
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### C. Project Organization Structure



DEA = Department of Economic Affairs; MP Transco = MP Power Transmission Co. Ltd.; DISCOM-C = Distribution Company–Central Zone; DISCOM-E = Distribution Company–East Zone; DISCOM-W = Distribution Company–West Zone; GoMP = Government of Madhya Pradesh; PMU = project management unit

#### IV. COSTS AND FINANCING

13. The GOMP's transmission & distribution system improvement and capacity building program has planned to undertake approximately \$500 million worth of investment. The Government has requested up to \$350 million from ADB's ordinary capital resources to help finance this system improvement program.

14. The total loan of \$350 million will have a 25-year term including a grace period of 5 years, 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. ADB loan proceeds and will be relented by the Government to the state of MP on relending terms and conditions consistent with Indian legislation and acceptable to ADB, and the state will onlend the proceeds to MP Transco and the DISCOMs on terms and conditions mutually acceptable to ADB, the government and the state.

**Table 1: Project Investment Plan**  
(\$ million)

Item	Amount <sup>a</sup>
<b>A. Base Cost<sup>b</sup></b>	
1. Transmission system improvement	271.64
2. Distribution System Improvement	124.00
4. Capacity Building	1.80
<b>Subtotal (A)</b>	<b>397.44</b>
<b>B. Contingencies<sup>c</sup></b>	82.67
<b>C. Financing Charges During Implementation<sup>d</sup></b>	19.89
<b>Total (A+B+C)</b>	<b>500.00</b>

<sup>a</sup> Includes taxes and duties of \$ 12.87 million to be financed from Government of Madhya Pradesh resources.

<sup>b</sup> In second quarter 2013 prices.

<sup>c</sup> Physical contingencies computed at 6.3% for base costs; price contingencies computed at 1.95% on foreign exchange costs and 5.02% on local currency costs.

<sup>d</sup> Includes interest and commitment charges. Interest during construction for the Asian Development Bank (ADB) loan has been computed at the 5 year forward London interbank offered rate (LIBOR) plus a spread of 0.40% and additional maturity premium of 0.10%. An on lending rate of 1% was also considered in estimating the financing charges. Commitment charges for an ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank estimates.

15. The financing plan is in Table 2. The counterpart funding comes from the GOMP. The GOMP has approved about \$150 million for the counterpart funding for this system improvement program. The EAs assured that their portion of counterpart funding will be provided in time.

**Table 2: Financing Plan**

Source of Financing	MP Transco		DISCOM-C		DISCOM-E		DISCOM-W		Training Institute		Total	
	\$ million	%	\$ million	%	\$ million	%	\$ million	%	\$ million	%	\$ million	%
1. ADB	250.00	71.54	32.08	70.66	33.33	70.03	33.33	59.81	1.26	70.00	350.00	70.00
2. GOMP / EAs	99.47	28.46	13.32	29.34	14.27	29.97	22.40	40.19	0.54	30.00	150.00	30.00
Total Project Cost	349.47	100.00	45.40	100.00	47.60	100.00	55.73	100.00	1.80	100.00	500.00	100.00

ADB = Asian Development Bank, DISCOM-C = Madhya Pradesh Madhya Kshetra Vidut Vitaran Company Limited, DISCOM-E = Madhya Pradesh Poorva Kshetra Vidut Vitaran Company Limited, DISCOM-W = Madhya Pradesh Paschim Kshetra Vidut Vitaran Company Limited, GoMP = Government of Madhya Pradesh, MP Transco= Madhya Pradesh Power Transmission Company Limited

## A. Detailed Cost Estimates by Expenditure Category

SI No	Item	USD Million			% of Base Cost
		Foreign Exchange	Local Currency	Total Cost	
A.	<b>Investment Costs</b> a/				
1	Civil Works and Equipment b/	348.74	-	348.74	87.75%
2	Capacity Development (Hostel, Laboratory, & Associated Facilities)	1.26	-	1.26	0.31%
3	Capacity Development (Training & Consultants)	-	0.54	0.54	0.14%
	Taxes and duties	-	12.87	12.87	3.24%
	<b>Sub Total (A)</b>	<b>350.00</b>	<b>13.41</b>	<b>363.41</b>	<b>91.44%</b>
B.	<b>Other Costs</b>				
1	Land	-	0.34	0.34	0.09%
2.	Land preparation and accessories	-	28.12	28.12	7.08%
3	Environmental & Social Mitigation	-	5.57	5.57	1.40%
4	Project management and construction supervision	-	-	-	0.00%
	<b>Sub Total (B)</b>	<b>-</b>	<b>34.03</b>	<b>34.03</b>	<b>8.56%</b>
	<b>Total Base Cost</b>	<b>350.00</b>	<b>47.44</b>	<b>397.44</b>	<b>100.00%</b>
C.	<b>Contingencies</b>				
1	Physical c/	-	25.01	25.01	6.29%
2	Price d/	-	57.66	57.66	14.51%
	<b>Sub Total (C)</b>	<b>-</b>	<b>82.67</b>	<b>82.67</b>	<b>20.80%</b>
D.	<b>Financing Charges During Implementation</b>				
1	Interest during construction e/	-	18.86	18.86	4.75%
2	Commitment Charges f/	-	1.03	1.03	0.26%
	<b>Sub Total (D)</b>	<b>-</b>	<b>19.89</b>	<b>19.89</b>	<b>5.00%</b>
<b>Total Project Cost (A+B+C+D)</b>		<b>350.00</b>	<b>150.00</b>	<b>500.00</b>	<b>125.81</b>

a/ In Q1-2013 Prices

b/ Local transport and insurance charges are included under turnkey contracts.

c/ Computed at 6.3% of base costs

d/ Computed at 1.95% on foreign exchange costs and 5.02% on local currency costs

e/ Interest during construction for ADB loan(s) has been computed at 5 year forward LIBOR plus a spread of 0.40%, 1% on lending rate and additional maturity premium of 0.10%.

f/ Commitment charges for an ADB loan are 0.15% per year to be charged on the undisbursed loan amount

Source: Asian Development Bank estimates.

**B. Allocation and Withdrawal of Loan Proceeds**

CATEGORY				ADB FINANCING
Number	Item	Total Amount Allocated for ADB Financing		Percentage and Basis for Withdrawal from the Loan Account
		Category	Subcategory (\$)	
1	Civil Works and Equipment	348,740,000		
1A	MP Transco		250,000,000	100 % of total expenditure claimed*
1B	DISCOM -C		32,080,000	100 % of total expenditure claimed*
1C	DISCOM -E		33,330,000	100 % of total expenditure claimed*
1D	DISCOM -W		33,330,000	100 % of total expenditure claimed*
2	Capacity Development (Hostel, Laboratory, & Associated Facilities)	1,260,000		100 % of total expenditure claimed*
	<b>Total</b>	350,000,000		

\*Exclusive of taxes and duties imposed within the territory of the Borrower

### C. Detailed Cost Estimates by Financier

S No	Item	ADB		Counterpart		\$ Million
		Amount	% of cost category	Amount	% of cost category	Total Amount
A.	<b>Investment Costs</b>					
1	Civil Works and Equipment	348.74	100.00%	0.00	0.00%	348.74
2	Capacity Development (Hostel, Laboratory, & Associated Facilities)	1.26	100.00%	-	0.00%	1.26
3	Capacity Development (Training & Consultants)	-	0.00%	0.54	100.00%	0.54
4	Taxes and duties	-	0.00%	12.87	100.00%	12.87
	<b>Sub Total (A)</b>	<b>350.00</b>	<b>96.31%</b>	<b>13.41</b>	<b>3.69%</b>	<b>363.41</b>
B.	<b>Other Costs</b>					
1	Land	-	0.00%	0.34	100.00%	0.34
2.	Land Preparation and Accessories	-	0.00%	28.12	100.00%	28.12
3	Environmental & Social Mitigation	-	0.00%	5.57	100.00%	5.57
	<b>Sub Total (B)</b>	<b>-</b>	<b>0.00%</b>	<b>34.03</b>	<b>100.00%</b>	<b>34.03</b>
	<b>Total Base Cost</b>	<b>350.00</b>	<b>88.06%</b>	<b>47.44</b>	<b>11.94%</b>	<b>397.44</b>
C.	<b>Contingencies</b>					
1	Physical	-	0.00%	25.01	100.00%	25.01
2	Price	-	0.00%	57.66	100.00%	57.66
	<b>Sub Total (C)</b>	<b>-</b>	<b>0.00%</b>	<b>82.67</b>	<b>100.00%</b>	<b>82.67</b>
D.	<b>Financing Charges During Implementation</b>					
1	Interest during construction	-	0.00%	18.86	100.00%	18.86
2	Commitment Charges	-	0.00%	1.03	100.00%	1.03
	<b>Sub Total (D)</b>	<b>-</b>	<b>0.00%</b>	<b>19.89</b>	<b>100.00%</b>	
	<b>Total Project Cost (A+B+C+D)</b>	<b>350.00</b>	<b>70.00%</b>	<b>150.00</b>	<b>30.00%</b>	<b>500.00</b>

## D. Detailed Cost Estimates by Outputs/Components

		\$ Million						
S No	Item	Transmission System Improvement			Distribution System Improvement		Capacity Building	
		Total Cost	Amount	% of cost category	Amount	% of cost category	Amount	% of cost category
<b>A.</b>	<b>Investment Costs</b>							
1	Civil Works and Equipment	348.74	237.15	68.00%	111.59	32.00%	-	0.00%
2	Capacity Development	1.80	-	0.00%	-	0.00%	1.80	100.00%
3	Taxes and duties	12.87	6.39	49.65%	6.48	50.34%	-	0.00%
	<b>Sub Total (A)</b>	<b>363.41</b>	<b>243.54</b>	<b>67.02%</b>	<b>118.07</b>	<b>32.49%</b>	<b>1.80</b>	<b>0.50%</b>
<b>B.</b>	<b>Other Costs</b>							
1	Land	0.34	0.34	100.00%	-	0.00%	-	0.00%
2	Land Preparation and Accessories	28.12	19.13	68.03%	8.99	31.97%	-	
3	Environmental & Social Mitigation	5.57	5.57	100.00%	-	0.00%	-	0.00%
	<b>Sub Total (B)</b>	<b>34.03</b>	<b>25.04</b>	<b>73.58%</b>	<b>8.99</b>	<b>26.42%</b>		<b>0.00%</b>
	<b>Total Base Cost</b>	<b>397.44</b>	<b>268.58</b>	<b>67.58%</b>	<b>127.06</b>	<b>31.97%</b>	<b>1.80</b>	<b>0.45%</b>
<b>C.</b>	<b>Contingencies</b>							
1	Physical	25.01	20.12	80.45%	4.89	19.55%	-	0.00%
2	Price	57.66	42.56	73.81%	15.10	26.19%	-	0.00%
	<b>Sub Total (C)</b>	<b>82.67</b>	<b>62.68</b>	<b>75.82%</b>	<b>19.99</b>	<b>24.18%</b>	<b>-</b>	<b>0.00%</b>
<b>D.</b>	<b>Financing Charges During Implementation</b>							
1	Interest during construction	18.86	14.37	76.19%	4.49	23.81%	-	0.00%
2	Commitment Charges	1.03	0.79	76.70%	0.24	23.30%	-	0.00%
	<b>Sub Total (D)</b>	<b>19.89</b>	<b>15.16</b>	<b>76.22%</b>	<b>4.73</b>	<b>23.78%</b>	<b>-</b>	<b>0.00%</b>
	<b>Total Project Cost (A+B+C+D)</b>	<b>500.00</b>	<b>346.42</b>	<b>69.28%</b>	<b>151.78</b>	<b>30.36%</b>	<b>1.80</b>	<b>0.36%</b>

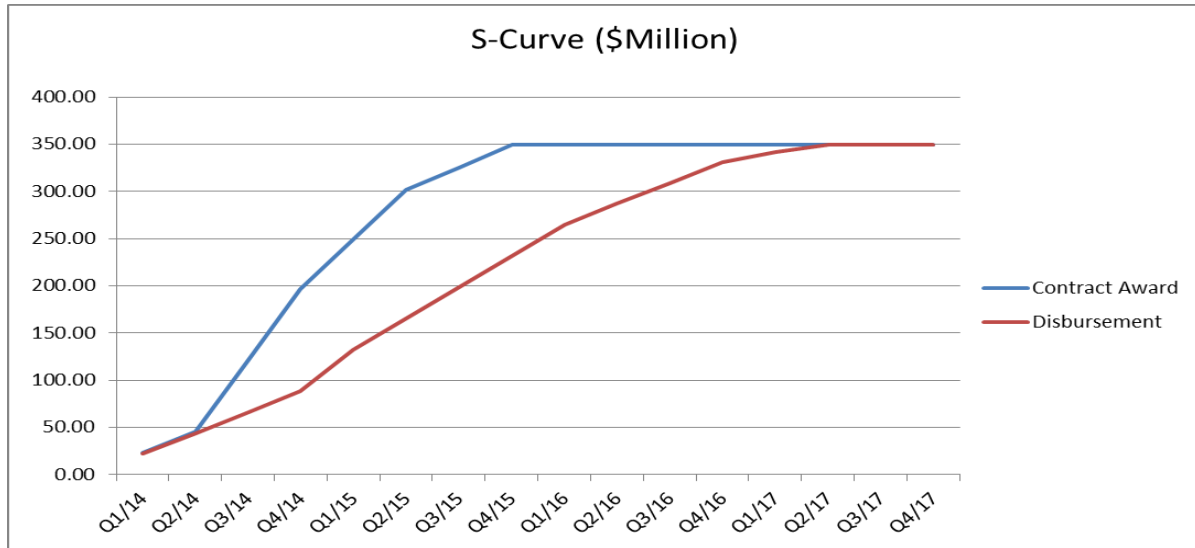


## E. Detailed Cost Estimates by Year

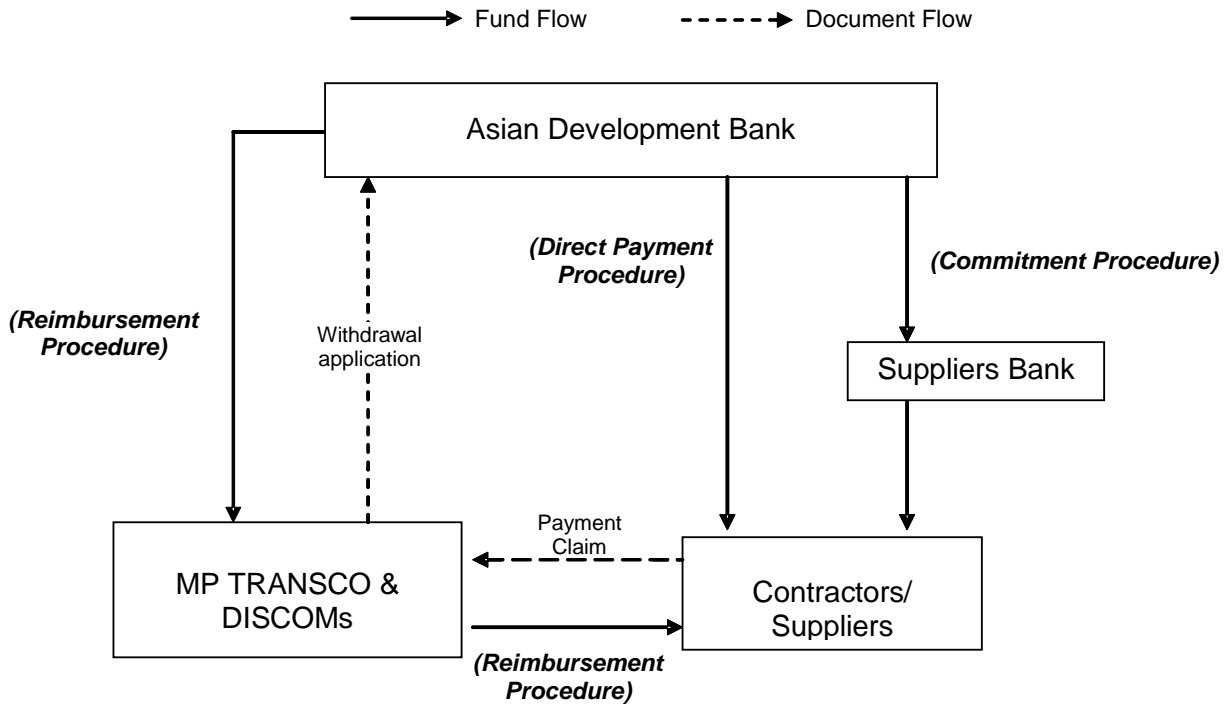
S No	Item	USD Million				
		Total Cost	Year 1	Year 2	Year 3	Year 4
<b>A.</b>	<b>Investment Costs</b>					
1	Civil Works and Equipment	348.74	43.59	148.22	104.62	52.31
2	Capacity Development	1.8	0.54	1.26	-	-
3	Taxes and duties	12.87	1.93	5.8	3.86	1.28
	<b>Sub Total (A)</b>	<b>363.41</b>	<b>46.06</b>	<b>155.28</b>	<b>108.48</b>	<b>53.59</b>
<b>B.</b>	<b>Other Costs</b>					
1	Land	0.34	0.03	0.14	0.1	0.07
2	Land Preparation and Accessories	28.12	3.52	11.95	8.43	4.22
3	Environmental & Social Mitigation	5.57	0.56	2.23	1.67	1.11
	<b>Sub Total (B)</b>	<b>34.03</b>	<b>4.11</b>	<b>14.32</b>	<b>10.2</b>	<b>5.4</b>
	<b>Total Base Cost</b>	<b>397.44</b>	<b>50.17</b>	<b>169.6</b>	<b>118.68</b>	<b>58.99</b>
<b>C.</b>	<b>Contingencies</b>					
1	Physical	25.01	2.99	10.49	7.5	4.03
2	Price	57.66	6.82	24.47	17.86	8.51
	<b>Sub Total (C)</b>	<b>82.67</b>	<b>9.81</b>	<b>34.96</b>	<b>25.36</b>	<b>12.54</b>
<b>D.</b>	<b>Financing Charges During Implementation</b>					
1	Interest during construction	18.86	0.7	3.73	7.63	6.8
2	Commitment Charges	1.03	0.49	0.35	0.15	0.04
	<b>Sub Total (D)</b>	<b>19.89</b>	<b>1.19</b>	<b>4.08</b>	<b>7.78</b>	<b>6.84</b>
<b>Total Project Cost (A+B+C+D)</b>		<b>500.00</b>	<b>61.17</b>	<b>208.64</b>	<b>151.82</b>	<b>78.37</b>

**F. Contract and Disbursement S-curve**

16. The graph below depicts projections of contract awards and disbursements over the life of the project from the beginning of 2014 to the end of 2017.



**G. Fund Flow Diagram**



## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

17. **Financial Sustainability.** MP Transco and DISCOMs have been making losses in the last five years. The negative operating cash flow and profitability ratios indicate that the EAs are not able to generate enough cash to meet their obligations in the past. This has been mainly attributed to disallowances by the MPERC in the Annual Revenue Requirements due to failure in achieving the T&D losses reductions by the DISCOMs and disallowance of terminal benefits for MP Transco which is allowed in 2013 during true-up of the expenses incurred by the MPERC. MP TRANSCO's financial projections show that with progressive tariff increases, profitability could be achieved from current year onwards with accumulation of retained earnings surging to Rs79 billion at end of FY 2022. DISCOM-C financial projections show that with progressive tariff increases of 5% year to year growth, profitability could be achieved by FY 2015-2016. Historically, tariff increases in MP is more than 5% between FY 2003 and FY 2012. With profitability in FY 2016, DISCOM-C's cash flow position improves with debt service ratio becoming positive and improving to 0.41 in FY 2017. The self-financing capacity of the company is limited in the short term but improves over the longer term so that the company should be able to contribute to their capital expenditure in the future. DISCOM-E and DISCOM -W have shown very similar financial performances in the past and they are predicted to become profitable by 2016.

18. **Financial Management Assessment** – A financial management assessment was conducted in accordance with the ADB Guidelines<sup>3</sup> for the MP Transco and each of the DISCOMs to ensure adequate financial management arrangements for the implementation of the project, with a focus on budgeting, staffing, fund flows, internal controls, accounting and financial reporting and internal and external audit arrangements.

19. The MP Transco is a wholly state owned enterprise and budgetary allocations are made from the State budget. MP Transco has adequate capacity for project accounting, reporting, and managing funds flow, and has previously managed external projects financed by multilateral and bilateral donor agencies. A number of improvements have been made in recent years, including the reduction of transmission losses and maintenance and efficiency enhancement measures. MP Transco even received a Project Management Award in 2008. Accounting records are maintained on an accrual basis through a combination of manual and batch processing. Enterprise Resource Planning (ERP) is in the process of implementation and expected to be in place by December 2015. Internal audit is conducted by firms of chartered accountants to whom the internal audit function has been outsourced. The financial statements are audited by the CAG, India. Auditors' opinion on previous years' financial statements indicates that internal controls are adequate and commensurate with the size and scope of the entity, although controls over fixed assets are considered weak. Full implementation of the asset module of the ERP system would address this risk.

20. MP distribution companies, the DISCOMs, are also wholly state owned enterprises and budgetary allocations are made from the State budget. The DISCOMs have adequate capacity for project accounting, reporting, and managing funds flow, and have recently managed external projects financed by multilateral and bilateral donor agencies satisfactorily. Implementation arrangements were adequate and audited project financial statements were submitted on a timely basis. No significant audit observations were raised. ERP is in the process of implementation and it is expected that it will be rolled out in DISCOM-C by December 2013, and

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<sup>3</sup> Financial Due Diligence: A Methodology Note, ADB, January 2009'

DISCOM- E and DISCOM-W by 2015. Accounting and internal audit arrangements are the same as MP Transco. The auditors' opinion also indicated weaknesses in controls over fixed assets.

21. There are no major issues identified for financial management during project implementation. It is recommended that the current financial management practice be strengthened by the implementation of ERP, which would also enhance controls over fixed assets. It is also recommended that an accountant is assigned to the PMUs at each implementing agency. Under the previous ADB interventions, a set of measures for good governance have been introduced and are already in place. For example:

- (i) **Procurement.** Procurement activities were strictly implemented in accordance with ADB guidelines; bid specifications and packaging have been prepared to ensure maximum competition under international competitive bidding procedures; and capacity development of sector entities on e-procurement have been achieved to increase transparency, accountability, and efficiency in procurement;
- (ii) **Financial Management and Audit.** Accessible and sound financial management, accounting, and auditing procedures are in place; and
- (iii) **Institutional and Corporate Governance.** Public disclosure of operational and institutional performances have been introduced to ensure transparency; fully functional sector regulator has been achieved to ensure equal opportunities for all sector entities and to improve sector governance; independent board of directors have been appointed.

22. The above measures have been included as loan covenants in the previous MP energy sector projects and have mostly been achieved. Further, since the same executing agencies will implement the proposed Project, there is no need for additional governance measures. Financial management and performance assessment indicate adequate capacity of the executing agencies.

23. **Financial Viability.** Incremental cash flows attributable to the proposed investments were estimated based on the methodology and assumptions described above. The financial internal rate of return (FIRR) computed for the DISCOMs, MP Transco and the overall project have been outlined in the Table 3 below. Clearly, the FIRR values are above the hurdle rate of 4.0%. The detailed cash flows of the benefits, costs, the net cash flows and the FIRR calculations for each of the Distribution Company are presented in Linked Document 7 (Financial Analysis).

**Table 3: Financial Internal Rate of Return for DISCOMs and MP TRANSCO**

<b>Distribution Company</b>	<b>Financial Internal Rate of Return</b>
DISCOMs	12.7%
MP TRANSCO	7.7%
Overall Project	9.3%
Weighted average cost of capital	4.0%

DISCOM = distribution company, FIRR = financial internal rate of return, MP Transco = Madhya Pradesh Power Transmission Company Limited.

Source: Asian Development Bank estimates.

## **B. Disbursement**

24. The Loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time),<sup>4</sup> and detailed arrangements agreed upon between MP Transco & DISCOMs and ADB. Reimbursement procedures will be applicable under retroactive financing in accordance with ADB's policies and procedures in case payments are released prior to loan effectiveness.

25. Before the submission of the first withdrawal application, MP Transco & DISCOMs will submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of MP Transco & DISCOMs, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is \$50,000 equivalent unless otherwise approved by ADB. Individual payments below this amount should generally be paid from the imprest fund, or by the executing agencies and subsequently claimed to ADB through reimbursement. ADB reserve the right not to accept withdrawal applications below the minimum amount.

26. A Second Generation Imprest Account (SGIA) will be opened only by DISCOM-C for the capacity building expenditures. The maximum ceiling of the imprest account will not at any time exceed \$100,000. The request for advance to the imprest account should be accompanied by an Estimate of Expenditure Sheet setting out the estimated expenditures for the six months of project implementation.

27. The owner of the First Generation Imprest Account is the Aid Accounts and Audit Division (CAAA), Department of Economic Affairs, Ministry of Finance, Government of India.

28. For the specific imprest account opening process, CAAA may establish, and cause to be established, immediately after the loan effective date, (i) an imprest account at the Reserve Bank of India, and (ii) its sub-account for DISCOM-C at a commercial bank acceptable to ADB.

29. The imprest account shall be established, managed, replenished and liquidated in accordance with the ADB's *Loan Disbursement Handbook*, and detailed arrangements agreed upon between CAAA and ADB. The imprest account shall be used only for the purposes of the Project.

30. The currency of the imprest account shall be in the US Dollar, and the currency of its sub-account shall be the Indian Rupee.

31. For every liquidation and replenishment request of the imprest account, CAAA will furnish to ADB: (i) Statement of Account (Bank Statement) where the imprest account is maintained; and (ii) the Imprest Account Reconciliation Statement (IARS) reconciling the above mentioned bank statement against the EA's records.

32. The statement of expenditure (SOE) procedure will be used, as a simplified documentation, for reimbursement, liquidation, and replenishment of the imprest account for eligible expenditure not exceeding \$100,000 per individual payment. 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.

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<sup>4</sup> Available at: <http://www.adb.org/sites/default/files/loan-disbursement-handbook.pdf>

33. Basic requirements for Direct Payment, Reimbursement and Commitment, and SOE, as a simplified documentation, as follows:

Responsible Person/Unit	Activity
<p><b>A. Direct Payment – The State/executing agencies through Govt. of India may request ADB to pay the supplier/contractor directly. Expenditure being claimed for ADB financing should be charged to Procurement Contract Summary Sheet (PCSS). Accordingly, before submitting to CAAA, please ensure that Procurement Contract Summary Sheet (PCSS) Number is obtained from ADB<sup>5</sup>.</b></p>	
<p>EAs  ADB-INRM</p>	<ul style="list-style-type: none"> <li>• Completes the withdrawal application, summary sheet and supporting documents and submit to CAAA for further action. CAAA then forwards them to ADB-INRM for processing.</li> <li>• Receives the completed forms, review and if in order, authorizes ADB HQ Manila to proceed with payment.</li> </ul>
<p><b>B. Reimbursement – ADB pays the Borrower for eligible expenditures which have been incurred and paid for by the Project out of its budget allocation or its own resources.</b></p>	
<p>EAs  ADB-INRM</p>	<ul style="list-style-type: none"> <li>• Completes the withdrawal application, summary sheet and supporting documents and submit to CAAA for further action. CAAA then forwards completed documents to ADB-INRM for processing.</li> <li>• Receives the completed forms, review and if in order, authorizes ADB HQ Manila to proceed with payment.</li> </ul>
<p><b>C. Commitment – ADB, at the request of Borrower, provides an irrevocable undertaking to reimburse a commercial bank for payments to supplier against a letter of credit.</b></p>	
<p>EAs  ADB-INRM</p>	<ul style="list-style-type: none"> <li>• Completes application for issuance of commitment letter, ADB loan summary sheet for issuance of commitment letter and supporting documents</li> <li>• Supporting documents: Together with application for commitment letter, the following should be submitted – two signed copies of the authenticated letter of credit and contract or confirmed purchase order (PO).</li> <li>• All these documents are submitted to CAAA for further action and then CAAA forwards completed documents to ADB-INRM for processing.</li> <li>• Receives the completed forms, review and if in order, forward the request in hard copy to ADB HQ Manila for issuance of commitment letter.</li> </ul>
<p><b>D. Statement of Expenditures (SOE) – Used where it is unduly burdensome to require full documentation and applies to operating costs of EA or expenditures related to small contracts. For reimbursable expenditures out of Project loans, the ceiling is \$100,000 per payment. ADB reserves the right to conduct spot or random checks of expenditures covered by SOE through ADB review missions.</b></p>	
<p>EAs  ADB-INRM</p>	<ul style="list-style-type: none"> <li>• Completes SOE forms instead of the usual supporting documents and summary sheet</li> <li>• The Borrower certifies that expenditures have been incurred and paid for in accordance with the terms and conditions of the loan agreement</li> <li>• Records are maintained and are available for inspection and examination by ADB review missions and independent auditors, if required.</li> <li>• Receives the completed forms, review and if in order, authorizes ADB HQ Manila to proceed with payment.</li> </ul>

### C. Accounting

34. MP Transco and DISCOMs will maintain (i) its corporate accounts; and (ii) separate project financial statements and records by funding source for all expenditures incurred on the project. Accounts will be maintained following accounting principles and practices prescribed by the Government's accounting laws and regulations prevailing in India.

<sup>5</sup> This requirement is applicable for reimbursement, commitment, and SOE.

## D. Auditing

35. MP Transco and DISCOMs will cause the detailed consolidated corporate financial statements to be audited in accordance with the audit regulations prevailing in India by an independent auditor whose qualifications, experience and terms of reference are acceptable to ADB. The audited financial statements comprising the balance sheet, profit and loss account, cash flow statement, and related schedules, together with the auditors' opinion, will be submitted in the English language to ADB within one month of their approval by their respective governing bodies.

36. The MP Transco and DISCOMS will also cause the detailed project financial statements to be audited in accordance with International Standards on Auditing and with the Government's audit regulations, by an independent auditor acceptable to ADB. The audited project financial statements will be submitted in the English language to ADB within six months of the end of the fiscal year. These shall be prepared to ensure maximum alignment to international accounting standards and Government of India financial Regulations.

37. As part of each annual audit of the project financial statements, the auditors will prepare a report which will include an audit opinion which covers (i) whether the project financial statements present a true and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework; (ii) whether loan proceeds were used only for the purposes of the project or not; (iii) the level of compliance for each financial covenant contained in the legal agreements for the project; (iv) use of the imprest fund procedure; and (v) the use of the statement of expenditure procedure certifying to the eligibility of those expenditures claimed under SOE procedures, and proper use of the SOE and imprest procedures in accordance with ADB's Loan Disbursement Handbook and the project documents<sup>6</sup>, as well as 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.

38. The government, state and EAs have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited financial statements<sup>7</sup>.

39. ADB reserves the right to verify the project's financial statements to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures. For revenue generating projects, ADB requires audited financial statements for the executing agencies. ADB shall disclose the annual audited financial statements for the Project 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

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<sup>6</sup> If a management letter has been issued by the auditor, a copy of this shall also be submitted to ADB

<sup>7</sup> ADB Policy on delayed submission of audited project financial statements:

- When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (i) the audit documents are overdue; and (ii) if they are not received within the next six months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- When audited project financial statements have not been received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (i) inform the executing agency of ADB's actions; and (ii) advise that the loan may be suspended if the audit documents are not received within the next six months.
- When audited project financial statements have not been received within 12 months after the due date, ADB may suspend the loan.

40. Unaudited project financial statements should be submitted for auditing within 3 months of the end of the fiscal year. MP Transco & DISCOMs will also provide ADB with such other information regarding the accounts, financial statements and audit thereof as ADB may reasonably request from time to time. MP Transco & DISCOMs will enable ADB to discuss with the independent auditors about MP Transco & DISCOMs' financial affairs from time to time. Unless otherwise agreed, such discussions would be held with the auditors' representatives in the presence of MP Transco & DISCOMs officials.

41. ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed.

42. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's Public Communications Policy (2011).<sup>8</sup> After review, ADB will disclose the project financial statements for the project 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. The audit management letter and the corporate level financial statements will not be disclosed.

## VI. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting and Retroactive Financing

43. 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*) 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>9</sup> The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. MP Transco & DISCOMs have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the Project.

44. **Advance contracting.** In order to expedite project implementation, advance contracting for the procurement of equipment, goods and works were undertaken. The steps to be concluded in advance include preparation of bidding documents, bidding, and bid evaluation for all the eligible contract packages to be agreed between ADB and MP Transco & DISCOMs.

45. **Retroactive financing.** Except as otherwise agreed by ADB, the expenditures incurred for equipment and materials are eligible for retroactive financing, provided these have been incurred before the effectiveness of the related loan agreement, but not more than 12 months before the signing of the related loan agreement and as long as they do not exceed an amount of 20% of the loan.

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

46. All procurement of goods and works shall be undertaken in accordance with ADB's *Procurement Guidelines*. International competitive bidding procedures shall be followed for all the packages. MP Transco and DISCOMs have sufficient capacity to design and administer

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<sup>8</sup> Available from <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

<sup>9</sup> Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>



T&D system construction. MP Transco and DISCOMs have also demonstrated good performance and track record with procurement of plant, goods and works for transmission systems for the past and ongoing ADB funded projects. Therefore, they have sufficient knowledge on ADB's *Procurement Guidelines* and procedures.

47. An 18-month procurement plan indicating threshold and review procedures, goods, and works contract packages is in Section C.

48. All consultants will be recruited according to ADB's *Guidelines on the Use of Consultants*.<sup>10</sup> The terms of reference for all consulting services are detailed in Section D.

49. An estimated 26 person-months (11 international, 15 national) of consulting services are required to (i) support project management and implementation, and (ii) strengthen the institutional and operational capacity of the executing agency. A consulting firm will be engaged using the quality- and cost-based selection (QCBS) method with a standard quality cost ratio of 90:10.

## C. Procurement Plan

<b>Basic Data</b>	
<b>Project Name</b>	Madhya Pradesh Transmission and Distribution System Improvement Project
<b>Country</b>	India
<b>Executing Agencies</b>	(i) M.P. Power Transmission Co. Ltd. (MP Transco) (ii) M.P. Madhya Kshetra Vidyut Vitaran CO. Ltd.(DISCOM-C) (iii) M.P. Poorv Kshetra Vidyut Vitaran Co. Ltd. (DISCOM-E) (iv) M.P. Paschim Kshetra Vidyut Vitaran Co. Ltd. (DISCOM-W)
<b>Loan Amount</b>	\$ 350 million
<b>Loan Number</b>	To be determined
<b>Date of First Procurement Plan</b>	24 July 2013
<b>Date of this Procurement Plan</b>	25 July 2013

### Process Thresholds, Review and 18-Month Procurement Plan

#### 1. Project Procurement Thresholds

50. 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 for Turn Key and Goods	\$1,000,000 and more

#### 2. ADB Prior or Post Review

51. 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.

<sup>10</sup> Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

Procurement Method	Prior or Post	Comments
<b>Procurement of Goods and Works</b>		
International Competitive Bidding (ICB) for Works and Plants	Prior	
ICB for Goods	Prior <sup>11</sup>	

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

52. The following table lists goods and works contracts for which procurement activity is either ongoing or completed.

General Description	Contract Value (\$million)	Procurement Method	Prequalification of Bidders (y/n)	Advertisement Date	Comments
<b>MP TRANSCO</b>					
400kV & 220kV Substations and Transmission Lines (TR-501)	109.9	Turnkey	No	6 August 2013	Financed by ADB
132kV Substations and Transmission Lines (TR-502)	81.7	Turnkey	No	6 August 2013	Financed by ADB
132kV Substations and Transmission Lines (TR-503)	74.4	Turnkey	No	6 August 2013	Financed by ADB
<b>DISCOM-C</b>					
33/11kV Substations and Line (Package-1)	25.0	Turnkey	No	17 August 2013	Financed by ADB
Capacitor Bank Installation (Package 2)	8.4	Turnkey	No	17 August 2013	Financed by ADB
<b>DISCOM-E</b>					
33/11kV Power Transformers Supply (D-25)	6.1	Supply	No	6 August 2013	Financed by ADB
33/11kV Substations and Lines (D-26)	23.2	Turnkey	No	9 August 2013	Financed by ADB
<b>DISCOM-W</b>					
33/11kV Substations and Lines (PPR-41)	24.6	Turnkey	No	15 August 2013	Financed by ADB
33/11kV Power Transformer Instal. (PPR-42)	9.0	Turnkey	No	15 August 2013	Financed by ADB

ADB = Asian Development Bank

### D. Consultant's Terms of Reference

53. **Power System Training Specialist (international, 3 person-months, national, 4 person-months):** An international power system specialist, as a team leader, will be responsible for the overall quality and implementation of the assignment, providing the required

<sup>11</sup> See para. 20.

support for the EA in developing and implementing the technical courses for the state power training institute. The consultant will be responsible for developing a comprehensive training program which shall be based on the short and long term needs assessment of the executing agencies. The power system engineer should have postgraduate degree in engineering together with minimum 15 years of training experience in any of the technical fields relating to the power transmission and distribution. The national power system training specialist will support and assist the international power training specialist with the tasks described above. He/ She will have at least a bachelor's degree in engineering from an established university and at least five years of experience in the training relevant to the power sector in India. The tasks of the power system specialists will include but not be limited to the following:

- (i) Undertake short and long term technical training needs assessment of the executive agencies for various levels in the organization;
- (ii) Assess the technical expertise requirement of other stakeholders like contractors, contracted staff which would need to be enhanced for the benefit of the executing agencies;
- (iii) Prepare a detailed training program based on the needs assessment for the technical staff in consultation with the executing agencies;
- (iv) Coordinate with other specialists in the team to identify and finalize the overall training requirements for the executing agencies which would form part of the training institute's curriculum;
- (v) Develop a comprehensive training curriculum and the training calendar for the technical courses which would include induction training, skill upgradation training, lab based training, introduction of new technologies relevant to the distribution utilities etc;
- (vi) Develop a management and reporting structure for training institute's role as the nodal training institute for the power sector in the state of MP;
- (vii) Propose a future expansion plan for the infrastructure of the training institute including addition of technical labs;
- (vii) Facilitate the institutionalization of program for training the trainers on technical module; and
- (viii) Conduct three set of trainings - two rounds of technical training for the identified staff and one round of training to the trainers.

**54. Financial Management Training Specialist (international, 2 person-months; national, 2 person-months).** The international financial management training specialist, with assistance from the national specialist, will be responsible for developing the financial management courses to be targeted at the technical and non-technical staff. The international specialist will have at least a postgraduate degree in finance, and 15 years of relevant training experience in financial management. He/she should have adequate exposure to the financial and tariff issues in the power sector. The national specialist will have at least a bachelor's degree in finance from an established university and at least five years of experience in training relevant to the power sector requirements. The consultant(s) will assist the team leader in developing a comprehensive training program which shall be based on the assessment of the current and future requirements of the executing agencies. The tasks of the financial management training specialist will include but not be limited to the following:

- (i) Identify the training requirements relating to the financial functions of the executive agency for various levels in the organization;
- (ii) Prepare a detailed training program based on the requirements of the finance and accounting staff in consultation with the executing agencies;
- (iii) Prepare a detailed training program for finance module based on the requirements of the non-financing staff;

- (iv) Facilitate the institutionalization of program for training the trainers on financial module;
- (v) Conduct two set of trainings - one round of training on financial aspects for the identified staff and one round of training to the trainers identified by the executing agency; and
- (vi) Coordinate with the team leader on finalization of training curriculum for the institute

**55. Human Resource Training Specialist (international, 2 person-months; national, 3 person-months).** The international human resource (HR) training specialist, with assistance of the national specialist, will develop and conduct training courses in the human resource development. The international specialist will have postgraduate degree in HR and 10 years of relevant experience in conducting training for power sector. The national specialist will have at least a bachelor's degree in HR or related field from an established university and at least five years of experience in HR related training. The specialists will carry out, but not be limited to, the following tasks:

- (i) Prepare a detailed training program based on a needs assessment the of the employees in consultation with the executing agencies;
- (ii) Prepare a detailed training program for HR module targeted at the HR personnel within the organization;
- (iii) Facilitate the institutionalization of program for training the trainers on HR module;
- (iv) Conduct two set of trainings - one round of HR training for the identified staff and one round of training to the trainers; and
- (v) Coordinate with the team leader on finalization of training curriculum for the institute

**56. Safeguards Training Specialist (international, 2 person-months; national, 3 person-months).** The international safeguards training specialist, with assistance of the national safeguards training specialist, will develop and conduct training courses relating to the environmental and social safeguards for the power sector in India. The international specialist will have a postgraduate degree in environmental or social sciences or in a related field with 10 years of relevant experience in conducting training in the relevant field. The national specialist will have at least a bachelor's degree in environmental or social sciences or in a related field from an established university and at least five years of experience in providing training. The specialists will carry out, but not be limited to, the following tasks:

- (i) Prepare a detailed training program for the environmental and social safeguard requirements for the projects in the power sector;
- (ii) Develop the course content for the training in the areas of environmental and social safeguard to be provided to the staff and other stakeholders as identified by the EAs;
- (iii) Facilitate the institutionalization of program for training the trainers on safeguards module;
- (iv) Conduct two set of trainings - one round of training for the identified staff and one round of training to the trainers; and
- (v) Coordinate with the team leader on finalization of training curriculum for the institute

**57. Project Management Training Specialist (international, 2 person-months; national, 3 person-months).** The international project management specialist, with assistance of the national project management specialist, will develop and conduct training courses relating to the project management, procurement, and monitoring and evaluation. The international specialist will have postgraduate degree in engineering, economics, finance or related field with 10 years of relevant experience in conducting training in power sector project management. The national specialist will have at least a bachelor's degree in engineering, economics, finance or related field from an established university and at least five years of experience in providing training. The specialists will carry out, but not be limited to, the following tasks:

- (i) Prepare a detailed training program for project management, procurement, and monitoring and evaluation, in the power sector;
- (ii) Develop the course content for the project management, procurement and monitoring related trainings to be provided to the staff and other stakeholders identified by the EA;
- (iii) Facilitate the institutionalization of program for training the trainers on the respective modules;
- (iv) Conduct two set of trainings - one round of training for the identified staff and one round of training to the trainers; and
- (v) Coordinate with the team leader on finalization of training curriculum for the institute

## VII. SAFEGUARDS

58. Pursuant to ADB's Safeguard Policy Statement (2009) (SPS), 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 (Appendix 5) to subprojects financed by ADB.

59. **Involuntary Resettlement.** The project is classified as category B for involuntary resettlement in accordance with the SPS. A resettlement plan (RP) has been prepared in accordance with the government's Land Acquisition Act, 1894 (amended in 1984), National Rehabilitation and Resettlement Policy (2007), The Indian Telegraph Act 1885, the Indian Electricity Act 2003, relevant state policies and acts and the ADB's SPS. The construction of transmission lines will not require any permanent land acquisition. However, there will be temporary impacts on crop and livelihood sources. Effective measures to avoid, minimize, mitigate, and compensate for the adverse impacts are incorporated in a resettlement plan

60. Complete details of compensation rates loss of crop yields and other income restoration assistance are provided in the resettlement plan. Proper consultation was undertaken during the preparation of the RP with the project affected persons including land acquisition and compensation process. The RP will be disclosed to general public through the ADB website. If any modification or additional land requirement or involuntary resettlement impacts are identified during implementation, an RP should be prepared or the current RP should be modified in accordance with the applicable laws referred to in the RP. Prior approval of the ADB shall be obtained before any further implementation of the relevant subproject.

61. All affected people should be paid compensation and assistance in accordance with the resettlement plan. The land should be made free of encumbrances and obstructions from the related subproject required to be handed over to the contractor prior to commencement of construction thereof in accordance with the work schedule under the related civil works contract. Efficient grievance redress mechanism is in place in accordance with the related RP to assist affected persons to resolve grievances and complaints, if any, in a timely manner.

62. MP Transco and all three DISCOMs have established PMUs. Each PMU will designate an official or hire consultants who will be responsible for supervising the implementation of the RP. The implementation of the RP will be monitored internally by the EA and externally by qualified and experienced external experts, who will undertake the overall monitoring of the safeguards and relevant social issues and submit semiannual monitoring reports to EA for submission to ADB. The external experts will advise on safeguard compliance issues, and if any significant involuntary resettlement issues are identified, a corrective action plan will be prepared to address such issues.

63. **Indigenous People.** The project is classified as category C for indigenous peoples. According to social assessments, no indigenous peoples are expected to be impacted by project activities. The project will not impact the existing socio-cultural system of indigenous peoples. No tribal lands will be acquired or affected. Should any impacts on indigenous peoples be identified, an indigenous peoples plan will be prepared in accordance with the ADB's Safeguard Policy Statement. Prior approval of the ADB shall be obtained before any further implementation of the relevant subproject.

64. **Environment Safeguards.** The project is classified as category B on environment requiring an initial environmental examination (IEE). Following safeguard policy statement (SPS) 2009, an IEE was prepared for the project. No subproject is located within the vicinity of declared forest by the Ministry of Environment and Forest, cultural and archaeological sites, and the nine national parks and 25 wildlife sanctuaries in MP. The subprojects are not expected to cause significant adverse environmental impacts but may cause temporary impacts during construction that can be readily mitigated. Mitigation measures for these impacts are included in the environmental management plan of MP Transco, DISCOM-C, DISCOM-E, and DISCOM-W with costs incorporated in the bid documents. An environmental monitoring plan was also prepared. Project's capacity building component includes safeguards training for the EAs. The IEE was disclosed in the ADB website and a project brief in Hindi will be prepared by MP-Transco, DISCOM-C, DISCOM-E, and DISCOM-W and will be made available to the public at their field offices.

65. MP Transco and DISCOMs are responsible for implementing the environment management plan. Each PMU will designate an official or hire consultants who will be responsible for supervising the implementation of environmental management plan. The implementation of the environmental management plan will be monitored internally by the EA and externally by qualified and experienced external experts, who will undertake the overall monitoring of the environmental safeguards submit semiannual monitoring reports to EA for submission to ADB.

### VIII. GENDER AND SOCIAL DIMENSIONS

66. The power sector has significant potential to contribute to economic development and social wellbeing, and is both directly and indirectly linked to poverty reduction. Stable electricity supply promotes the agriculture sector and business expansion, and increases employment opportunities, which will have a positive impact on poverty reduction. A good quality, electricity supply without load shedding is also a key to meeting the basic human needs of health and education. Poor and vulnerable consumers, as well as public utilities such as hospitals and schools, are often particularly disadvantaged by an inadequate power supply, load shedding, and poor power quality, and will therefore benefit directly from the project. The project is expected to generate employment for skilled and unskilled labor during construction. EAs will be responsible for the compliance of labor standards by contractors, including equal pay for equal work (where women are concerned), and the provision of awareness training on HIV and sexually transmitted diseases and human trafficking, if relevant.

67. Gender. Focus group discussions were undertaken with women from different socioeconomic groups in the project influence area. Women stated the project will benefit them as currently there are frequent power cuts affecting both the household activities and the productivity of the industrial and commercial establishments. The project will provide a stable and reliable supply of electricity.

68. The same effects for women as for men are expected to be attained under this project. The bidding documents provide clauses designed to ensure that all civil works contractors comply with applicable labor laws, do not employ child labor, encourage the employment of the poor particularly women, and do not offer different wages to men and women particularly for work of equal value.

69. **HIV/AIDS.** Based on the poverty and social assessment, there is no risk that the project will increase HIV/AIDS incidence. However contractors will carry out HIV/AIDS awareness for their laborers at work sites, which will be monitored by the construction supervision consultants.

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

**DESIGN AND MONITORING FRAMEWORK**

<b>Design Summary</b>	<b>Performance Targets and Indicators</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Assumptions and Risks</b>
<p><b>Impact</b> Adequate and reliable power supply in Madhya Pradesh.</p>	<p>Potential transmission and distribution capacity gap of 20% in 2017 is reduced to about 3% by 2022.</p> <p>Households will continue to receive 24-hour power supply. .</p>	<p>Annual Reports of MPERC</p> <p>Annual Reports of MPERC</p>	<p><b>Assumptions</b> Generation expansion plan for India implemented as planned.</p> <p>Feeder separation program is implemented as planned.</p> <p>Demand for electricity will grow at the rate of 11% per annum during 2013-2017.</p>
<p><b>Outcome</b> Increased capacity and operational efficiency in the electricity transmission and distribution system</p>	<p>Distribution loss reduction from 27.% in 2013 to 16% by 2018</p> <p>Transmission loss reduction from 3.3% in 2013 to 3% by 2018 and maintained thereafter</p> <p>Increased transmission substation capacity from 37,000 MVA in 2013 to 41,000 MVA by 2018</p>	<p>Annual Reports of MPERC</p> <p>Annual Reports of MPERC</p> <p>Annual Reports of MPERC</p>	<p><b>Assumption</b> Ongoing Transmission and distribution projects are implemented as planned</p>
<p><b>Outputs</b> 1. Transmission system upgraded and expanded</p>	<p>About 1800 circuit-km of transmission lines installed by 2018</p> <p>Two new 400 kV substations constructed and three 400 kV substations upgraded by 2018</p> <p>Four new 220 kV substation constructed and five 220 kV substations upgraded by 2018.</p> <p>26 new 132 kV substations constructed by 2018</p>	<p>Annual reports of MP Transco</p> <p>Annual reports of MP Transco</p> <p>Annual reports of MP Transco</p> <p>Annual reports of MP Transco</p>	<p><b>Risk</b> Exchange rate fluctuation result in inadequate financial resources to deliver the outputs.</p>



Design Summary	Performance Targets and Indicators	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>2. Distribution system upgraded and expanded</p> <p>3. Built capacity of executing agency staff</p> <p>4. Project management system in place</p>	<p>About 3,125 circuit-km of distribution lines installed by 2018</p> <p>149 new 33/11 kV substations constructed by 2018</p> <p>328 33/11 kV substations upgraded by 2018</p> <p>About 10 trainers (males and females) trained by 2015</p> <p>About 100 staff (males and females) trained on procurement, project management, monitoring and evaluation, safeguards, and financial management by 2018</p> <p>Laboratory, training center hostel and support facilities constructed by 2018</p> <p>Project implemented on time and within allocated budget</p>	<p>Annual reports of DISCOMs.</p> <p>Annual reports of DISCOMs</p> <p>Annual reports of DISCOMs</p> <p>Annual reports of DISCOM-C</p> <p>Annual reports of DISCOM-C</p> <p>Annual reports of DISCOM-C</p> <p>Semiannual review reports of executing agencies</p>	
<p><b>Activities with Milestones</b></p> <ol style="list-style-type: none"> <li>1. Transmission system upgraded and expanded <ol style="list-style-type: none"> <li>1.1 Construction of transmission lines, transmission substation and upgrading existing substation commence by June 2014</li> </ol> </li> <li>2. Distribution system upgraded and expanded <ol style="list-style-type: none"> <li>2.1 Construction of distribution lines, distribution substation and upgrading existing distribution substations commence by June 2014</li> </ol> </li> <li>3. Build capacity of executing agency staff <ol style="list-style-type: none"> <li>3.1 Needs assessment completed by September 2014</li> <li>3.2 Curricula and training materials developed by December 2014</li> </ol> </li> <li>4. Project management system in place <ol style="list-style-type: none"> <li>4.1. Advertisement of bids by August 2013</li> <li>4.2. Contract awards by January 2014</li> <li>4.3. Recruitment of consultants for capacity building by June 2014</li> </ol> </li> </ol>			<p><b>Inputs:</b></p> <p><b>ADB Loan: \$350 million</b></p> <p><b>GOMP: \$150 million</b></p>

DISCOM = distribution company; kV = kilovolt, JICA = Japan International Cooperation Agency, MPERC = Madhya Pradesh Electricity Regulatory Commission; MVA=mega volt ampere, PMU = project management unit; MP Transco = Madhya Pradesh transmission company.

Source: Asian Development Bank.

## A. Monitoring

70. **Project performance monitoring.** Within 3 months of the effective date of the project, a project performance monitoring system (PPMS) will be established in a form acceptable to ADB and in accordance with the project performance indicators agreed upon by GOMP and ADB. The PMU will prepare quarterly progress reports and submit these to ADB within 30 days of the end of each quarter. These reports will provide (i) a narrative description of progress made during the period; (ii) changes in the implementation schedule; (iii) problems or difficulties encountered; (iv) work to be carried out in the next period; (v) progress on environmental and social compliance; and (vi) compliance with conditions of the individual loan and project agreements. The progress reports will also include a summary financial account for the project components, including subprojects, consisting of project expenditures during the period, total expenditures to date, and benefit monitoring in accordance with procedures and details acceptable to ADB. Performance will be evaluated on the basis of indicators and targets stipulated in the design and monitoring framework.

71. **Compliance monitoring.** A loan inception mission will ensure that all administrative matters pertaining to each subproject are properly in place and working relationships are established between concerned ADB staff and GOMP staff. Details relating to report requirements, accounting system, compliance with loan covenants, disbursement procedures and withdrawal applications will be clarified at this time.

72. The semiannual reports will cover compliance matters related to loan covenants.

73. Review missions will be conducted to monitor overall progress of the project, review expenditures and cost estimates, compliance progress, and most importantly discuss problems and issues causing delays in project implementation.

74. A mid-term review of the project will be undertaken by ADB, the Borrower, and GOMP at least two years after loan effectiveness to focus on engineering, resettlement and environmental aspects of the Project and to review the financial status of DISCOMs.

75. **Safeguards monitoring:** The Borrower will cause GOMP to ensure that within three months of the loan effective date, the EAs will establish a grievance redress committee or committees with representation from all stakeholders in the subprojects for addressing any grievances from affected peoples concerning resettlement, environment and any other social issues in a timely manner. The semiannual progress reports to be prepared by GOMP and submitted to ADB within 30 days of the end will include compliance with environmental and social safeguards requirements.

76. ADB review missions will also address the monitoring of safeguards.

77. **Gender and social dimensions monitoring:** Compliance with core labor standards including equal pay for equal work (which concerns women) and the provision of awareness training on HIV and sexually transmitted diseases and human trafficking (if necessary), SPRSS and PAM will be monitored internally by EA and externally by qualified and experienced consultants who will undertake the overall monitoring of the social issues and submit semiannual monitoring reports to EA for submission to ADB.

## **B. Evaluation**

78. Within 6 months of physical completion of the project, the EAs will submit a project completion report to ADB.<sup>12</sup>

## **C. Reporting**

79. The EAs will provide ADB with (i) semiannual 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 6 months of physical completion of the Project. To ensure projects continue to be both viable and sustainable, project accounts and the executing agency AFSs, together with the associated auditor's report, should be adequately reviewed.

## **D. Stakeholder Communication Strategy**

80. GOMP has been consulting with stakeholders including affected communities during the design stage of the Project. During the preparatory stages of the Project, consultations were carried out with various government officials concerned. Local communities, especially all the affected persons, will be consulted as part of the social and resettlement studies and surveys. Public consultations as per Indian laws and regulations as well as ADB's SPS will be conducted for each subproject during implementation.

## **X. ANTICORRUPTION POLICY**

81. The Borrower, the State, MP Transco and each DISCOM were advised of ADB's Anticorruption Policy (1998, as amended to date). Consistent with its commitment to good governance, accountability and transparency, implementation of the Project 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 Project. 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 Project Executing Agency and all contractors, suppliers, consultants, and other service providers as they relate to the Project. Individuals and 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.

## **XI. ACCOUNTABILITY MECHANISM**

82. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability

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<sup>12</sup> Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.<sup>13</sup>

## **XII. RECORD OF PAM CHANGES**

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

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<sup>13</sup> For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.