RISK ASSESSMENT AND RISK MANAGEMENT PLAN

A. Public Financial Management

1. Madhya Pradesh Electricity Regulatory Commission (MPERC) has been setting targets in transmission and distribution (T&D) loss reduction for the distribution companies every year in setting the tariff. Until FY2012, the distribution companies were unable to reduce the losses as specified by MPERC, resulting in lower revenues, increased power purchase cost, failure to meet debt service obligations on subproject investments, and lower than forecast returns. The loss reduction targets were first met in FY2012 and this trend is expected to continue. Therefore, this risk is assumed to be low.

2. The project will contribute toward a reduction in the overall technical and commercial losses in Madhya Pradesh from 27% in 2013 to 16% in 2022. A likely risk to the project is the technical loss reduction not being realized as projected. The profitability and financial health of the distribution companies depends on the loss reduction levels, so achieving a loss level that is higher than the required loss reduction is a risk. The distribution companies agreed to monitor the loss reduction achievements periodically and assured ADB that the projected loss reduction can be achieved. Loss reduction conditions were included in the project documents.

3. The current debt service coverage ratios (DSCRs) of the executing agencies are negative, which indicates that they are caught in a debt trap, and must borrow from external sources to fulfill their financial liabilities. Failure to achieve the T&D loss reduction targets set by MPERC will worsen the situation and they will not be able to venture out of the debt trap and achieve profitability. This means the companies will face challenges in raising funds from the market based on their balance sheets, as commercial banks will demand a comfortable DSCR of 1.20. The Government of Madhya Pradesh (GOMP) and the executing agencies assured that a DSCR of 1.2 will be maintained from FY2017 onward.

B. Inadequate Demand Growth

4. The project has been prepared with the assumption that about 11% growth of demand will take place from 2013 to 2017. By 2017, the T&D system should deliver about 7,000 megawatts (MW) of additional power to customers. An estimated 20% demand–supply gap may result by FY2017 if the T&D capacity is not enhanced. The proposed investments in T&D aim to remove bottlenecks and expand T&D capacity to meet growing demand. On the supply side, capacity additions of about 9,700 MW are projected to come from central- and state-owned utilities as well as independent power producers (IPPs). Given the average growth rate of about 13% in demand since 2010 the risk from inadequate growth in demand is low.

C. Exchange Rate Fluctuations

5. When this project was prepared, the exchange rate was Rs45 = $1. The Indian rupee devalued to about Rs58 = $1 at the time of the fact-finding mission and fell to Rs68 = $1 at the time of the management review meeting. This type of unprecedented exchange rate fluctuation may lead to cost escalation unless a conservative exchange rate is used for estimating project costs. The project costs were estimated considering an exchange rate of Rs50 = $1 to avoid cost escalation and the likelihood of providing a supplementary loan to complete the civil works. In the unlikely event of a very high exchange rate prevailing for a long time, loan savings can be absorbed to add substations or transmission or distribution lines.

D. Delays in Project Implementation

6. Delays in the construction and implementation of the project may be caused by failures in mobilizing the necessary counterpart funds, leading to an increase in the project cost and yielding a lower-than-envisaged return. However, the risks envisaged are considered low since (i) the cost estimates are based on the Standard Schedule of Rates published in April 2013 by the executing agencies; (ii) the executing agencies' implementation capacity has increased with the experience of implementing previous Asian Development Bank projects; (iii) the counterpart funding from GOMP has been approved by the GOMP cabinet, and the Madhya Pradesh Power Transmission Company (MP Transco) and the distribution companies agreed to contribute their shares of counterpart funding on time; and (iv) bid documents have been prepared and issued. A related risk is inadequate supervision, which results in poor quality construction. The executing agencies assured that they would maintain 11 staff per project management unit to provide adequate supervision during project implementation.

7. The project impacts depend on the timely implementation of the Madhya Pradesh generation plan. If the addition of generation capacities is delayed, the proposed T&D capacity additions may be underutilized. This risk is considered low because Madhya Pradesh is projected to have surplus generation from 2014 onward. The project impacts also depend on the timely completion of T&D projects implemented by GOMP. GOMP provided assurances that these projects will be implemented according to schedule.

E. Low Affordability

8. Recovery of the proposed investments and other factors, such as an increase in coal prices, may lead to a higher consumer tariff. Affordability may deprive the poorest households from accessing the service and higher tariffs may result in lack community support for the project, particularly on metering and bill collection. GOMP continues to provide a lifeline service free of charge for households below the poverty line, hence affordability risk is low. A willingness-to-pay survey conducted among 2,000 households revealed that people are willing to pay reasonable amounts for improved electricity services. Therefore, lack of community support for the project is considered a low risk for the project.

F. Institutional Sustainability

9. The unbundled distribution companies inherited some legacy systems from Madhya Pradesh State Electricity Board (MPSEB) for training and capacity development. Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company (DISCOM-C) has taken initiatives to institutionalize the training setup with regular courses since 2012. As part of the capacity development support, funds have been allocated to the distribution companies to scale up the training institute by providing consultancy support for the development of training curricula and courses as well as building institutional capability through direct training and train-the-trainer programs. This includes providing support for laboratories and student hostels. The proposed project will provide initial support but the DISCOM-C has to continue its support by allocating resources for continued capacity building. If the support for the training center does not continue after the project, the overall objective may not be achieved. GOMP and the DISCOM-C assured the continuation of support for the training center.

Risk Description	Risk Assessment	Management Plan
Unrealistic expectations on loss reduction in tariff setting	Medium	MPERC has changed its practice of setting unachievable loss reduction targets and the three distribution companies met the loss reduction targets in FY2012.
Inadequate distribution loss reduction	High	Distribution companies agreed to reduce losses and monitor loss levels using the computerized metering system.
Exchange rate fluctuations and related cost overruns	High	A conservative exchange rate was used in estimating the costs.
Delay in implementation of government-funded distribution projects	Medium	GOMP provided assurance that it will implement its distribution projects in a timely manner.
Delay in providing counterpart funds	Medium	GOMP provided assurances for timely provision of counterpart funding.
Poor construction quality resulting from poor supervision	Medium	MP Transco, distribution companies, and GOMP agreed to allocate 11 staff per project management unit for adequate supervision.
Low affordability and lack of public support for tariff increase	Medium	GOMP will continue to provide subsidized power to households below the poverty line.
Unsustainability of capacity building activities after project completion	Medium	GOMP and Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company (DISCOM-C) assured continuous provision of resources to sustain training programs.
Overall	**Medium**	

GOMP = Government of Madhya Pradesh, MPERC = Madhya Pradesh Electricity Regulation Commission, MP Transco = Madhya Pradesh Transmission Company.
Source: Asian Development Bank.