

ASIAN DEVELOPMENT BANK

TAR: IND 36318

TECHNICAL ASSISTANCE
(Financed by the Japan Special Fund)

TO

INDIA

FOR

PREPARING THE
ASSAM POWER SECTOR DEVELOPMENT PROGRAM

October 2002

CURRENCY EQUIVALENTS

(as of 30 September 2002)

Currency Unit	–	Rupee/s (Re/Rs)
Re1.00	=	\$0. 0207
\$1.00	=	Rs 48.3

ABBREVIATIONS

ADB	–	Asian Development Bank
AERC	–	Assam Electricity Regulatory Commission
ASEB	–	Assam State Electricity Board
GOA	–	Government of Assam
IEE	–	Initial Environmental Examination
MW	–	megawatt (1,000 kilowatts)
TA	–	technical assistance

NOTES

- (i) The fiscal year (FY) of the Government ends on 31 March.
- (ii) In this report, "\$" refers to US dollars.

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I. INTRODUCTION

1. During the 2002 India Country Programming Mission, the Government of India requested the Asian Development Bank (ADB) to extend its support beyond the three focal states (Gujarat, Kerala and Madhya Pradesh), to address growing interregional disparities. Assam is a key state for economic growth of the northeastern region of India and is facing a serious fiscal crisis. Given a strong commitment of the Government of Assam (GOA) to reform, ADB and the Government of India agreed that technical assistance (TA) and a loan would be provided to support reform of Assam's financial¹ and power sectors. An ADB mission visited Guwahati, the state capital, and Delhi from 12 to 24 September to undertake fact-finding for the TA to prepare the Assam Power Sector Development Program. The mission held discussion with GOA, Assam State Electricity Board (ASEB), central government officials, and concerned bilateral aid agencies, and reached an understanding on the objectives, scope, cost, and implementation arrangements of the TA. The TA is included in ADB's 2002 country program for India.²

II. ISSUES

2. Assam is a small state with a total population of 26.6 million. It is in the center of northeastern India and is a strategic corridor for southeast Asia. Assam's per capita income of Rs9,612³ is almost two-thirds of the national average; 89 % of its population are widely scattered in rural areas, and 41% are living below the poverty line. The gross fiscal deficit has reached 10% as a percentage of the state domestic product in FY2000 and is still increasing. Although Assam is blessed with natural resource such as oil, natural gas, and minerals and has thriving tea and rubber plantations, its industry has not grown significantly since independence because investments from outside the state have been deterred by law and order problems and ethnic unrest. Poor performance of the power sector has also been a major impediment to industrial growth. Per capita electricity consumption at 104 kilowatt-hour (kWh) is less than one third of the national average and the lowest in India. Therefore, improved power supply at a reasonable cost is essential to revive the state industry and economy. Of equally importance is restoring the sector to financial sustainability so that it is no longer a drain on state finances.

3. In March 2001, GOA signed a memorandum of understandings with the central government and committed to reforming its power sector to provide good quality power to all the people in the state and to achieve commercial viability in the power sector so that it can finance its investment needs and is not dependent on budgetary subsidies. Based on the memorandum of understanding, some reform action has been initiated by GOA and ASEB in areas such as policy and regulatory framework, efficiency improvement, financial restructuring, and human resource management.

4. Assam Electricity Regulatory Commission (AERC) has been constituted as a one-person commission in August 2001. AERC is now reviewing the first tariff petition by ASEB and will need to deal with more complicated regulatory matters as the reform program goes along. Given the critical role of AERC in the reform process, ADB will provide a TA in 2003 for capacity

¹ A loan "Assam Governance and Public Resource Management " is included in ADB's 2004 country program for India.

² The TA first appeared in *ADB Business Opportunities* (Internet Edition) on 1 July 2002.

³ Estimate for FY2000 at current prices.

building for AERC⁴ to support its full functioning. GOA is in the process of developing a new power sector policy, which describes development objectives, strategies on the sector reform and capital investment, and the role of the government for the sector development. This policy will become a basis for a reform act of the state. GOA targets the end of October 2002 for cabinet approval of the new sector policy and March 2003 for enactment of the reform act. GOA has also started to draft its new anti-power-theft legislation.

5. ASEB is a vertically integrated utility, fully owned by GOA. It has an installed capacity of 574.5 megawatt (MW) comprising 572.5 MW of thermal and 2 MW of hydropower. Of the thermal capacity, 300 MW is not operational due to reasons such as costly fuel, design problems, and inadequate maintenance. This results in plant load factor of 15% as compared to the national average of 70%. ASEB's own system meets only 120 MW out of total peak demand of 594 MW. The deficiency is being met by purchasing power from central power sector utilities and neighboring states. Transmission and distribution losses are estimated at 40% due to lack of investment and maintenance and nontechnical losses. Given that the future supply gaps is to be met by purchasing more power at a reasonable cost, ADB and ASEB agreed that the priority for ADB's project loan would be given to strengthening transmission and distribution networks, installing energy audit and consumer meters, and modernizing the billing and collection system. Although ASEB has some generation projects in its long-term investment plan, additional investment in generation needs to be carefully reviewed for cost effectiveness.

6. Due to the low plant load factor and high transmission and distribution losses, power supply in Assam costs about Rs5.9 per kWh, which is the highest in all Indian states. The average retail tariff covers only 62% of the cost, resulting in ASEB's accumulated loss of Rs44 billion as of March 2002. ASEB has not been able to meet its operating cash requirements, and posted an operating cash deficit of Rs2.5 billion in FY2002. To restore financial viability to the power sector, operational efficiency improvements and financial restructuring of ASEB are essential. In line with the recommendations by an ADB TA⁵, ASEB has introduced a profit center approach in its 14 distribution circles as a first step to unbundling and corporatizing its operations. Income and expenditure accounts of distribution operations have been separated from the head quarter so the financial performance of each distribution circle can be monitored. Heads of the circles have been given increased autonomy in financial and human resource management. A similar approach will be introduced in generation and transmission as well. To strengthen enforcement of the antitheft law, a task force was formed for all subdivisions. The task force comprises an ASEB engineer, an executive magistrate, and a local police officer. In all circles, billing and collection and maintenance functions have been separated to sharpen focus on revenue collection. As a result of these measures and the reduced cost of power purchase, ASEB's operational cash deficit for April to August in FY2003 has been halved, to Rs614 million, from that of the corresponding period in FY2002.

7. To make a fresh start under a reformed power sector, ASEB needs to clean up its balance sheet through drastic financial restructuring. Unpaid energy dues from the public sector amounted to approximately Rs0.9 billion as of March 2002, mostly represented by arrears from municipalities. ASEB is contemplating securitization⁶ of these arrears with the debtors and GOA. The rural electrification subsidy associated with unmetered rural consumers has never been paid by GOA and has accumulated to Rs9.7 billion as of March 2002. In addition to this,

⁴ AOTA "Capacity Building of Assam Electricity Regulatory Commission" (\$400,000) is included in ADB's 2003 country program for India.

⁵ ADB. 2000. *Technical Assistance to India for Support for Power Finance Corporation*. Manila.

⁶ GOA will issue bonds to ASEB to assume the unpaid energy dues from municipalities.

amounts that should have been paid by GOA for ASEB to ensure meeting the statutory 3% rate of return has amounted to Rs38.7 billion as of March 2002; the loans from GOA to ASEB amounted to Rs32.6 billion as of March 2002. As suggested by ADB, ASEB has started a discussion with GOA on off setting these cross-liabilities.

8. As a part of financial restructuring efforts, GOA has signed a tripartite agreement with the central government and Reserve Bank of India with regard to securitization of dues from all central government power suppliers, including National Thermal Power Corporation, Powergrid, and North Eastern Electric Power Corporation (NEEPCO) outstanding as of September 2001. GOA has also agreed to securitize dues from all central government fuel suppliers outstanding as of September 2001, and is waiting for clearance to sign a tripartite agreement. ASEB has defaulted on payment of some of bonds, loans from financial institutions, and GOA. The defaulted capital liabilities excluding GOA loans amounts to Rs5.3 billion as of March 2002. As a separate exercise in the financial restructuring for sector reform, ASEB will soon start debt restructuring discussions with its creditors.

9. As more than 90% of the state is rural, how rural electrification should be addressed under the reformed power sector structure is a major reform issue. Presently, 77% of all rural villages in the state have access to power at a single intake point, leaving approximately 5,700 villages unelectrified. Even in the electrified villages, many people are unconnected due to a lack of lines within villages. Most of the connected rural consumers are unmetered and heavily subsidized, representing 14% of total consumers, 12% of total energy consumption, and a negligible portion in total revenue. Given the central government's policy to achieve 100% rural electrification by 2012 and the critical condition of the state budget, ASEB has decided to purchase and install meters on the premises of all unmetered consumers by September 2003 and proposed under its first tariff proposal to AERC to eliminate the subsidized tariff for rural consumers. However, as in rural areas many of the consumers are very poor and the infrastructure tends to have a high capital cost per consumer, it is not financially viable to keep extending distribution lines while charging normal rates to the consumers. A new rural electrification policy and mechanism need to be developed to continue rural electrification in a financially sustainable manner. A summary initial poverty and social analysis is attached as Appendix 1.

10. Due to a long freeze in recruitments, ASEB suffers a serious gap in the age and skills mix of its labor. ASEB has a serious shortage of technical staff in their 30s and 20s. ASEB has proposed a voluntary retirement scheme to GOA to promote change, be able and resume recruitment. However, neither ASEB or GOA has sufficient budget to implement the scheme. Retraining and redeployment of the employees are also urgently required to meet ASEB's emerging business profile. Nontechnical employees need to be retrained and redeployed as technical staff such as meter readers. Technical staff also need to be retrained to be deployed in finance and accounting functions, which are major areas to be strengthened for the reform.

III. THE TECHNICAL ASSISTANCE

A. Purpose and Output

11. The objective of the TA is to assist GOA and ASEB to prepare a power sector development program aiming to improve sector performance both technically and financially. Proposing policy and legislative reforms to address issues constraining sector development will

also be an integral part of the TA. The TA's objective will be considered achieved when an appropriate policy, legal, and regulatory framework is in place, initial reform measures have been taken, and immediate investment projects have been prepared.

B. Methodology and Key Activities

12. The TA will start with legal and regulatory support to lay down the basic framework of the reform. Within the framework, detailed study of sector structure, financial restructuring, poverty reduction, and investment planning will be undertaken to meet the reform objectives. Advice on legal issues and stakeholder communication will be provided throughout TA implementation.

13. The scope of work consists of (i) supporting reform-related legislation and providing legal advice; (ii) developing a short/medium term reform agenda and a long-term reform plan; (iii) proposing options for a sector structure after unbundling ASEB, including reconfiguration of distribution; (iv) developing a rural electrification policy suitable in the context of the sector reform; (v) reviewing accounts and accounting practice and preparing financial statements for FY2002 based on international accounting standards; (vi) developing a 10year financial projection model and identifying liabilities to be taken over by unbundled successor entities; (vii) reviewing ASEB's power system investment plan to identify priority projects suitable for ADB financing and undertaking financial, economic, environmental, resettlement, and social analyses; (viii) assessing the reform impact on the poor and recommending mitigating measures; (ix) supporting communications with stakeholders and (x) providing immediate capacity building and training to the ASEB counterpart staff on reform-related issues.

C. Cost and Financing

14. The total cost of the TA is estimated at \$1million equivalent, consisting of \$517,140 in foreign exchange and \$482,860 in local currency equivalent. ADB will finance the entire foreign exchange cost of \$517,140 and \$282,860 equivalent of the local currency cost for a total of \$800,000 equivalent. The TA will be financed on a grant basis by the Japan Special Fund, funded by the Government of Japan. The Government will provide the remaining \$200,000 equivalent through counterpart staff, support services, office accommodation and facilities. The detailed cost estimates are in Appendix 2.

D. Implementation Arrangements

15. The TA will be carried out by an international consulting firm and international and domestic individual consultants. The international consulting firm will provide international consultants who have expertise in power sector restructuring, financial and economic analysis, power system planning and transmission, power distribution, and resettlement and social development (14 person-months). The international consulting firm team will include supporting domestic consultants with expertise in accounting, financial and economic analysis, power transmission and distribution, power generation, poverty and social impact analysis, indigenous people analysis, and environmental analysis (35 person-months). The international consulting firm will engage these domestic consultants in accordance with arrangements acceptable to ADB. In addition, international and domestic individual experts with experience in legal and regulatory aspects of power sector restructuring in India will be recruited by ADB to assist in various legal, policy and regulatory matters (2 person-months). A domestic individual expert in public relations will also be recruited by ADB to support stakeholder communication (3 person-months). ADB will select and engage the consultants in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB on the engagement of

domestic consultants. For selection of a consulting firm, the quality-and cost-based selection method with the simplified technical proposal will be used.

16. The state Department of Power and ASEB will be the executing agencies for the TA. ASEB will be responsible for the day-to-day work associated with the TA. The secretary (power) of GOA will be responsible for overall coordination among ADB, GOA, and ASEB. As a counterpart of the TA consultants, ASEB will form task teams in finance and commercial headed by ASEB's member (finance), technical headed by ASEB's (technical), and human resources headed by ASEB's member (personnel and administration). Each task team will include at least two counterparts who have at least 10 years with ASEB or its successor entities. Under the TA, ASEB will give the counterpart staff short-term training sessions particularly in finance, accounting, and computer skills and will organize workshops on various reform issues, seen by outside resource persons.

17. ASEB will provide office accommodation, local communication facilities, and other administrative support including travel arrangements within Assam for the consultants. ASEB will provide all available reports and information related to power sector reforms and proposed investment projects, and will facilitate collection of socioeconomic data by the consultants. The TA budget provides for purchase of office equipment to be conducted by ASEB in accordance with ADB's *Guidelines for Procurement* and other arrangements satisfactory to ADB. Appendix 3 provides the outline terms of reference for the consultants.

18. The TA will be completed in about 8 months, from February 2003 to September 2003. The major reports required from the consultants and the number of months after TA commencement by which the reports should be submitted are as follows: (i) an inception report to describe in detail the work program of the TA, with a time schedule and detailed work assignments (3 weeks); (ii) a first report describing progress of work, and status in accordance with the original work program (2 months); (iii) a second report describing progress of work, and status in accordance with the original work program (4 months); (iv) a draft final report describing the assignment on an overall basis, and highlighting any unfinished tasks (7 months); and (v) a final report, which is the draft final report after incorporating ADB's comments (8 months).

19. Each report will be discussed at a tripartite meeting consisting of GOA, ASEB, ADB, and the consultants. Workshops and seminars will be organized by the consultants and ASEB from time to time during TA implementation to disseminate information about the reform program to the ASEB staff and other stakeholders.

IV. THE PRESIDENT'S DECISION

20. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$800,000 to the Government of India on a grant basis for preparing the Assam Power Sector Development Program, and hereby reports this action to the Board.

SUMMARY INITIAL POVERTY AND SOCIAL ANALYSIS

A. Linkages to the Country Poverty Analysis

Sector identified as a national priority in country poverty analysis? Yes	Sector identified as a national priority in country poverty partnership agreement? No poverty partnership agreement
Contribution of the sector/subsector to reduce poverty in India:	
Rural electrification has been given emphasis in India's power sector development to provide access to electricity to the poor people. The introduction of competitive markets through restructuring of public utilities and private sector participation will also contribute to ensuring energy supply to industry and household at the most economic cost. This will create more employment for the poor.	

B. Poverty Analysis

Proposed Classification: TBD

What type of poverty analysis is needed?
<p>1. Assess the direct and indirect effects on poor and vulnerable groups of the proposed reform policy, such as tariff increase and mandatory meter installation, and recommend any necessary mitigating measures designed to protect the poor and vulnerable.</p> <p>2. Review design features of the proposed program and recommend how they may be improved to assist the poor and small business to access electricity and improve basic social services in remote rural areas.</p> <p>3. Identify and quantify the target client population in each subproject area that is expected to benefit from the subproject's output; and prepare an initial social assessment for the target population, clearly identifying key social dimensions that include any indigenous peoples, poverty reduction, gender in development, and involuntary resettlement, in accordance with ADB's <i>Handbook on Resettlement, a Guide to Good Practice</i> and ADB's <i>Handbook on Poverty and Social Analysis</i>, and ADB's <i>Policies on Gender and Development and Indigenous People</i>.</p>

C. Participation Process

Stakeholder analysis:
<p>During this reform process, several major changes will be made in the structure of the sector, its governance, the tariff structure, and the customer orientation of its employees. These changes may temporarily put pressure on some of the sector's stakeholders, who may perceive some of the changes as being inimical to their interests. The anxiety of the affected groups and their tendency to oppose the reform process will greatly diminish if all stakeholder groups are regularly consulted during the reform process, and are able to contribute to it in terms of ideas, in disseminating information and in providing feedback on design and implementation.</p> <p>Participation strategy required:</p> <p>A communication expert will be recruited under the Technical Assistance and will undertake the followings:</p> <ul style="list-style-type: none"> (i) Support Assam State Electricity Board in developing strategy for communication with its employees and consumers at state and local levels. (ii) Support ASEB in identifying a suitable modality for communication with various stakeholders and appropriate bodies to represent major consumer groups and disseminating information to them. (iii) Support ASEB and/or other consumer bodies in organizing workshops and seminars, information sharing and building consumers' awareness of the reform and reflecting their views in the reform process. (iv) Support ASEB and other consultants in organizing workshops and seminars with the employees and outside stakeholders to disseminate the outputs of the TA and information about the reform program.

D. Potential Issues

Subject	Significant, Not Significant, Uncertain, None	Strategy to Address Issues	Plan Required
Resettlement	Uncertain	A short resettlement plan will be prepared during the TA study if land acquisition and resettlement are expected during implementation of the proposed program. However, no significant land acquisition and resettlement are expected as the loan will focus on transmission and distribution.	Yes
Gender	Uncertain	Social assessment	No
Affordability	Significant	40% of Assam's population is under the poverty line. Tariff rationalization will increase cost of electricity for the poor. Appropriate mitigation measures need to be introduced by the government.	Yes
Labor	Significant	Unbundling of ASEB will accompany labor rationalization including reduction under voluntary retirement scheme. Employment and pension payments need to be secured in a policy and legal framework of the reform program while encouraging retraining and redeployment of labor.	Yes
Indigenous People	Uncertain	Tribal people constitute 12.82% of the State's population. Whether any of the investment projects will be located or pass through areas of indigenous people's settlement and/ or use is not known.	TBD
Other Risks/ Vulnerabilities	None	None were identified	None

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Foreign Exchange	Local Currency	Total Cost
A. Asian Development Bank Financing^a			
1. Consultants			
a. Remuneration and Per Diem			
i. International Consultants	367.0	0.0	367.0
ii. Domestic Consultants	0.0	177.0	177.0
b. International and Local Travel	55.0	14.0	69.0
c. Reports and Communications	15.0	10.0	25.0
2. Equipment	0.0	25.0	25.0
3. Training, Seminars, and Conferences			
a. Facilitators	0.0	5.0	5.0
b. Training Program	0.0	10.0	10.0
4. Surveys	0.0	0.0	0.0
5. Miscellaneous Administration and Support Costs	0.0	0.0	0.0
6. Representatives for Contract Negotiations	5.0	0.0	5.0
7. Contingencies	75.1	41.9	117.0
Subtotal (A)	517.1	282.9	800.0
B. Government Financing			
1. Office Accommodation and Transport	0.0	70.0	70.0
2. Remuneration and Per Diem of Counterpart Staff	0.0	100.0	100.0
3. Others	0.0	30.0	30.0
Subtotal (B)	0.0	200.0	200.0
Total	517.1	482.9	1,000.0

^a Financed by the Japan Special Fund .
Source: Asian Development Bank estimates

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. The technical assistance (TA) will be implemented by individual consultants and an international consulting firm.

A. Part I. Support for Legal and Regulatory Framework (2 person-months of International and Domestic Individual Consultants)

2. International and domestic legal experts will undertake the following:

- (i) Assist in drafting the reform act and other reform-related legislation.
- (ii) Review the business codes and internal regulations of the Assam Electricity Regulatory Commission and propose necessary changes.
- (iii) Support the Government of Assam in drafting a new anti-theft legislation.
- (iv) Provide Government of Assam, Assam State Electricity Board and other Asian Development Bank consultants with legal advice in various reform issues

B. Part II. Support for Power Sector Reform and Preparation of Investment Projects (14 person-months of an International Consulting Firm and 35 person-months of Domestic Consultants)

1. Support for Power Sector Reform

3. In collaboration with the legal experts, the consultants will undertake the followings:

- (i) Review all reform actions already taken by GOA and ASEB and assess the current status of the reform.
- (ii) Develop a short/medium-term reform agenda with a time-bound action plan based on the Power Policy Statement 2002 and the draft reform act and assess the political economy of the state and its impact on effecting the proposed reform agenda.
- (iii) Advise on the modalities and approaches of unbundling ASEB. Propose, keeping in view the ongoing profit center approach and needs for rural electrification, options of new sector structure including organizational, operational, financial, and commercial arrangements among successor entities. Facilitate GOA's policy decisions.
- (iv) Review and ensure that any new or revised policies which are developed under this component and may relate to matters dealing with land acquisition and resettlement are prepared according to policies of ADB, GOA, and the central government and international best practice.
- (v) Develop a long-term reform plan (including a long-term competition policy) based on the Power Policy Statement 2002 and the draft reform act.
- (vi) Develop a set of key performance indicators for each profit center to enable evaluation of its performance. Establish target levels for the indicators and draft associated performance contracts.

- (vii) Support GOA and ASEB in developing a rural electrification policy in the context of the sector reform and advise on appropriate rural electrification models.
- (viii) Review ASEB's financial statement of FY2002 and assist ASEB in making modifications necessary to comply with international accounting standards. Pay particular attention to accounting of receivables and capital works.
- (ix) Segregate ASEB's cleaned balance sheets for FY2002 into provisional opening balance sheets for generation, transmission, and distribution.
- (x) Develop a financial projection model for ASEB. Prepare a 10year financial projection for different restructuring scenarios, including income statement, balance sheets, and cash flow statements. Identify liabilities that could be serviceable by new sector companies. Prepare a financial restructuring plan with an associated transfer scheme from the existing ASEB to its successor entities.
- (xi) Based on the above projections, assess the impact of the reform program on GOA's budget, and estimate the costs of adjustments.
- (xii) Propose options for distribution reconfiguration taking into account technical, financial, and social aspects.
- (xiii) Support ASEB in interaction with Assam Electricity Regulatory Commission for the first tariff petition and preparation of the second tariff petition. Pay particular attention to rationalization of tariff structure for improved cost recovery and gradual removal of cross-subsidization.
- (xiv) Conduct, in accordance with ADB's *Handbook on Poverty and Social Analysis and Guidelines for Impact of Program Loans on Poverty*, a poverty impact and social assessment to assess the direct and indirect effects on poor and vulnerable groups of the proposed reform policy such as tariff increase, mandatory meter installation and labor rationalization. Recommend any necessary mitigating measures designed to protect the poor and vulnerable. Pay particular attention to impacts on tribal people and appropriate mitigation measures, including preparing an indigenous peoples' development plan if necessary, as well as opportunities for accessing benefits should be developed. The consultant will be guided by GOA and central government laws and policies and ADB's *Policy on Indigenous People*. All information should be disaggregated by gender, tribal groups as applicable, and poor and vulnerable groups. The poverty and social assessment will recommend mitigation measures as well as measures to enable tribal, poor, and vulnerable groups to benefit from the reform program.
- (xv) Develop an appropriate monitoring mechanism to enable GOA and ASEB to monitor implementation of the proposed program.
- (xvi) Organize, in collaboration with ASEB, in-house seminars and workshops on the outputs of the TA and other reform issues and act as resource persons for such seminars and workshops.

- (xvii) Assess the institutional capability of all agencies that are central to the reform process and effective delivery of the investment component including social assessments and resettlement plans as necessary, in accordance with ADB's *Involuntary Resettlement Policy*. Identify areas of TA including capacity building and training needs, and prepare draft terms of reference for required consulting services.
- (xviii) Review the environmental impacts of the policies and institutional reforms to be introduced under the sector reform and suggest appropriate environmental interventions and covenants if any.

2. Preparation of Investment Projects

4. The consultants will undertake the following:

- (i) Review ASEB's power system and the medium-term investment plan, and identify priority subprojects for ADB funding with a focus on transmission and distribution.
- (ii) Review the Profit Center Study under the previous ADB TA and the implementation status of the distribution profit center approach, including billing and collection operations. Assess the scope of computerization of billing and collection, cash management and Management Information System. Assist ASEB in preparing a project proposal for ADB funding.
- (iii) Review project reports prepared by ASEB for the identified subprojects. Update cost estimate where necessary. Prepare a list of materials, equipment, and works necessary to implement the subprojects.
- (iv) Outline project implementation and procurement arrangements including contract packaging, and a project implementation schedule, and support preparation of bidding documents where necessary.
- (v) Perform economic and financial analysis for each subproject to determine its economic and financial rate of return in accordance with ADB's *Guideline for the Economic Analysis of Projects* and *Guidelines for the Financial Governance and Management of Investment Projects Financed by the Asian Development Bank*.
- (vi) Assess the environmental impacts of each subproject and undertake an initial environmental examination (IEE) and an environmental impact assessment (if a generation subproject is included) and present the findings in an IEE report. When preparing the reports, refer to ADB's *Environmental Guidelines for Selected Industrial and Power Development Projects* and *Environmental Review Procedures* to ensure that the IEE is comprehensive and complies with ADB's requirements and format.
- (vii) Identify land acquisition and resettlement impacts and prepare (a) a resettlement framework, and (b) resettlement plans for all confirmed subprojects. If any subproject affects more than 100 indigenous individuals, resettlement plans will be developed as indigenous peoples development plans. The resettlement plans

and framework will be prepared in accordance with ADB's *Handbook on Resettlement, A Guide to Good Practice* and ADB's *Policy on Indigenous People's Development* and applicable GOA and central government laws and policies. All efforts will be made to avoid or minimize land acquisition and resettlement.

- (viii) Prepare a summary IEE report in accordance with ADB's format prescribed in the *Environmental Assessment Requirements and Environmental Review*
- (ix) *Procedures*; submit both the IEE and the summary IEE for review, and incorporate any subsequent comments in finalizing the reports.
- (x) Prepare the land acquisition and compensation plan (where there is no resettlement) and prepare the land acquisition and resettlement framework (where there is resettlement) in accordance with ADB's *Involuntary Resettlement Policy, Handbook on Resettlement and a Guide to Good Practice*. Prepare a resettlement plan for subprojects that are confirmed and involve resettlement, in accordance with ADB's *Handbook on Resettlement, A Guide to Good Practice, Policy on Indigenous People* and the relevant laws and regulations of GOA and the central government.
- (xi) Conduct a social and poverty assessment on the subprojects in accordance with ADB's *Handbook on Poverty and Social Assessment*. Identify and quantify the target client population in each subproject area and prepare a social assessment for the target population. Disaggregate information by social groups as well as gender. Recommend measures to enhance project designs to benefit poor and vulnerable groups and improve public services and delivery to remote areas. Pay particular attention to impacts on scheduled tribes. Mitigation measures and development benefits should be identified and prepared according to ADB's *Policy on Indigenous People*.
- (xii) Propose a sustainable benefit monitoring scheme including proposals for collection of socioeconomic data, number and qualifications of personnel required, and names of local institutions capable of carrying out the proposed studies. Make preliminary estimates of the cost of such data collections.
- (xiii) Collect baseline information on the parameters identified in (x).

5. To undertake the tasks of Part II, the international consultants will be assisted by 35 person-months of domestic consultants with expertise in accounting, financial and economic analysis, power transmission and distribution, power generation, poverty and social impact analysis, indigenous people analysis, and environmental analysis. The international consultants will be responsible for producing reports.

C. Part III. Stakeholder Communication (3 person-months of a Domestic Individual Consultant)

6. In collaboration with other consultants, the consultant will do the following:

- (i) Support ASEB in developing a strategy for communication with its employees and consumers at state and local levels.
- (ii) Support ASEB in identifying a suitable modality for communication with stakeholders and appropriate bodies to represent major consumer groups.
- (iii) Support ASEB and/or other consumer bodies in organizing workshops and seminars for building consumers' awareness of the reform and reflecting their views in the reform process.
- (iv) Support ASEB and other consultants in organizing workshops and seminars with the employees and outside stakeholders to disseminate the outputs of the TA and information about the reform program.