



Technical Assistance Report

Project Number: 41681
October 2008

India: Facilitating the Operations of the Energy Conservation Fund “Energy Smart” in Madhya Pradesh

(Financed by the Second Danish Cooperation Fund for Renewable Energy and Energy Efficiency in Rural Areas)

CURRENCY EQUIVALENTS

(as of 31 August 2008)

Currency Unit	–	Indian rupee/s (Re/Rs)
Re1.00	=	\$.02276
\$1.00	=	Rs43.945

ABBREVIATIONS

ADB	–	Asian Development Bank
ECA	–	Energy Conservation Act
ECF	–	Energy Conservation Fund
GOMP	–	government of Madhya Pradesh
MFF	–	multitranches financing facility
MPPSIP	–	Madhya Pradesh Power Sector Investment Program
MW	–	megawatt
TA	–	technical assistance

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	General intervention
Sector	–	Energy
Subsector	–	Energy sector development
Themes	–	Sustainable economic growth, private sector development, capacity development
Subthemes	–	Public-private partnerships; institutional development; client relationship, network, and partnership development

NOTES

- (i) The fiscal year (FY) of the Government of India ends on 31 March. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2008 ends on 31 March 2008.
- (ii) In this report, "\$" refers to US dollars.

Vice-President	X. Zhao, Operations 1
Director General	K. Senga, South Asia Department (SARD)
Director	T. Kandiah, Energy Division, SARD
Team leader	N. T. Anvaripour, Principal Energy Specialist, SARD

I. INTRODUCTION

1. During the preparation of the Madhya Pradesh Power Sector Investment Program (MPPSIP), the Government of India asked the Asian Development Bank (ADB) to support the operations of the Energy Conservation Fund through technical assistance (TA) to promote the culture of energy efficiency in Madhya Pradesh.¹ ADB conducted a Fact-Finding Mission 26–29 November 2007 and reached an understanding with the Government on the scope, cost estimates, financing, implementing arrangements, and the consultants' terms of reference of the proposed TA.² The design and monitoring framework of the TA is in Appendix 1.

II. ISSUES

2. India possesses substantial unrealized potential for energy conservation to bridge supply gaps, with energy savings possible in commercial and government-owned buildings, industry, agriculture, and domestic sectors. With proper policies, awareness, and training, energy conservation and efficiency could increase the competitiveness of consumers, ensure better supply of energy to needy consumers, and reduce the burden on power sector companies during peak supply hours. The Government's strategy to make power available to all by 2012 includes the promotion of energy conservation and efficiency, which is considered the least-cost option to fill the gap between demand and supply. Energy efficiency alone could create nearly 25,000 megawatts (MW) of capacity, according to estimates of the Government. Energy conservation potential for the economy as a whole has been assessed at 23% of the energy generation, with industry and agriculture showing the most potential. The Government acknowledges the need for energy conservation and efficiency, and enacted the Energy Conservation Act (ECA) in 2001 to tap the vast potential of energy conservation and efficiency benefits. The ECA provides the legal framework, institutional arrangement, and regulatory mechanism at the central and state levels to embark upon an energy conservation and efficiency drive in India.

3. Although the benefits of energy efficiency are well known, a variety of barriers faced by energy users have impeded investments in energy conservation and efficiency. These include (i) risk averseness and lack of motivation to make energy efficiency investments, (ii) low credibility of energy auditors and their services, and (iii) lack of confidence in the ability of energy efficiency equipment to deliver energy savings as expected. In addition, resource constraints and the high cost of financing, when available, have severely limited implementation progress of energy efficiency projects. Therefore, the Government, through the ECA, mandated the creation of the state-level Energy Conservation Fund (ECF) to serve as an accessible and effective funding device for energy efficiency projects. The ECA requires the provision of technical and financial support to consumers to change their operations and/or technology, and shift to energy-efficient systems. Making the energy efficiency program a success in India requires further emphasis and a decentralized approach, which means state governments will have to take the lead.

4. ADB is assisting Madhya Pradesh through its MPPISP, a \$620 million multitranche financing facility. Investments under the MPPISP directly address energy efficiency issues in transmission and distribution, and provide a solid foundation for the sustainable growth of the reformed power sector in Madhya Pradesh. The MPPSIP is performing well, and the first four

¹ ADB. 2007. *Report and Recommendation of the President to the Board of Directors on Multitranche Financing Facility to India for the Madhya Pradesh Power Sector Investment Program*. Manila (approved on March 2007).

² The TA first appeared in the business opportunities section of ADB's website on 8 December 2007.

tranches are being implemented. The government of Madhya Pradesh (GOMP) understands and acknowledges the importance of energy efficiency and the leadership role attached to it. Initial assessments in Madhya Pradesh found that the implementation of energy efficiency schemes could save Rs9 billion a year and reduce demand by more than 1,150 MW. for new generation. Implementing energy efficiency schemes costs an estimated at Rs10 to 25 million per MW, compared to Rs40 million per MW to add fresh generation capacity, and an additional Rs10 to Rs15 million per MW for transmission and distribution. In September 2006, GOMP approved a new policy for nonconventional resource development, including directing 5% of the Rs0.10 per kilowatt-hour levy on electricity sales into energy conservation. GOMP plans to utilize the levies collected thus far as part of the seed capital for the ECF. Under the MPPSIP, GOMP also requested ADB to allocate a \$5 million loan to help capitalize the ECF. This component of the MPPSIP was originally scheduled for 2009. Aware of the significance of energy efficiency activities and its leadership role in facilitating them, GOMP requested ADB to approve this component in 2008 and provide assistance for the sustainable implementation of the ECF. ADB recruited consultants to assist GOMP in (i) structuring operating modalities and procedures of the ECF, and (ii) developing new financing modalities and instruments to bridge the gap between supply and demand. ADB and GOMP are working closely to formally establish the ECF, determine its management and operational structure, and decide how the funds will be applied.³ Consultants' outputs will be used to provide adequate information in the periodic financing request for the ECF under ADB's MPPSIP.

5. The ECF will have a well-defined and transparent framework for selecting and prioritizing energy efficiency projects. It will not be a closed fund; GOMP plans to initially capitalize the ECF by committing proceeds from the ADB loan and contributions from the energy efficiency levy, constructing a relatively low-cost capital base from which returns will be generated. The ECF will present opportunities for private participation, not only as fund manager and financing recipient but also as a financier through ongoing capital injections to accelerate its growth. ADB's involvement will create the opportunity for cofinancing from the new Clean Development Mechanism Fund and other energy efficiency funds. A fund manager for the ECF will be selected through a competitive and transparent process. As a result, the ECF will incur startup expenses for things such as remuneration, office space, communication, marketing, travel for due diligence of energy efficiency projects, and creation of a website for information dissemination. However, it takes a long time from disbursement to repayment by the client because the process includes steps such as project approval by the ECF, arrangement of funds to be put in by the client, implementation of energy efficiency measures, and energy savings realized by the client. International experience in a few countries in Asia and Europe, and in the United States, demonstrates that this type of fund received external financial support for their operations for the initial years to make them sustainable. Therefore, financial support will be essential to sustain the operations of the ECF until repayments start coming in, which is expected to be in 5 years. This strategy is expected to help make the ECF operations sustainable from the fifth year onwards; no subsidy would be required after that. In addition, disseminating information, developing partnerships through outreach, and spreading awareness among consumers and financiers are necessary to develop a portfolio of energy efficiency projects that can be implemented. Outreach and awareness activities will create an environment conducive to the ECF, and will provide visibility to establish credence among the stakeholders.

³ ADB. 2006. *Technical Assistance to India for Project Processing and Capacity Development*. Manila (TA 4814-IND, approved on 30 June); and ADB. 2006. *Technical Assistance to India for Knowledge Management and Capacity Building*. Manila (TA 4780-IND, approved on 17 April).

6. The proposed TA will support the operations of the ECF and provide assistance for its initial stage operational expenditures with the aim of achieving sustainability in the long term. The ECF will be utilized to implement programs through technical and financial assistance to consumer groups, and will realize benefits for all stakeholders involved (e.g., GOMP, power sector companies, and consumers). The ECF will facilitate financing of revenue-generating energy efficiency projects implemented by public sector and private sector entities. The modality developed could be replicated in other states of India.

III. THE PROPOSED TECHNICAL ASSISTANCE

A. Impact and Outcome

7. The TA will facilitate the energy efficiency program of Madhya Pradesh by financially supporting initial stage operational activities of the ECF. The TA will enable the ECF to be financially stable in the first 5 years and self-sustaining thereafter. This initiative will encourage commercial banks and financial institutions to overcome barriers to financing energy efficiency projects. Through promotional activities such as information dissemination, outreach, and spreading awareness among the consumers and financiers, the TA will produce a model that will facilitate implementation of energy conservation measures in Madhya Pradesh.

B. Outputs

8. TA outputs will include (i) supporting the operations of ECF and provide funding for the initial stage of operational expenditures, (ii) facilitating portfolio development, (iii) assisting outreach and awareness, and (iv) financing operational and financial audits.

C. Methodology and Key Activities

9. The project activities can be divided into four categories, with each activity comprising specific outputs. Collectively, these activities will stimulate the creation of a specialized ECF and will provide initial operational support for its sustainability.

1. Activity 1: Supporting the Operations of the ECF

10. This activity will be implemented in phases. To facilitate the operations of the ECF, a financial expert will be recruited to develop and finalize (i) articles of association, (ii) deed of registration, and (iii) role of parties note. The TA will also support the relevant management expenditures of the ECF (the terms of reference for the fund manager is in Appendix 4). Average operational expenditures of the ECF are estimated at \$100,000 per year, and the TA will finance 100% in the first 2 years, 60% in the third year, 40% in the fourth year, and 20% in the fifth year. The financing amount will be reduced because the fund is expected to earn income from the third year onwards. The TA will also finance due diligence reviews for future capital injections from private equity funds, and will partially cover marketing activities of the ECF for the first 3 years.

2. Activity 2: Facilitate Portfolio Development

11. Under this activity, the TA will finance 10 energy audits in the first 3 years in various sectors in Madhya Pradesh. These audits will be used to develop energy saving action plans and detailed project reports. These activities will be financed either as grant assistance or on a cost-sharing basis initially under this TA (for the first 3 years) and subsequently by the ECF. In

addition, the ECF will facilitate energy efficiency demonstration projects and assist GOMP in designing reward programs and public education activities. Energy auditors will be selected from a pool of individuals or firms, including energy service companies (depending on the size of the project) and must be accredited by the accreditation committee and approved by the executive committee of the Government's Bureau of Energy Efficiency. Energy auditors will follow the bureau's guidelines and terms of references for energy audits.

3. Activity 3: Assist Outreach and Awareness

12. This activity will support awareness programs that will be organized for a diverse group of stakeholders whose involvement in energy efficiency is crucial to the success of the ECF. The participants will be owners of commercial buildings, utilities, industries, policy makers, energy auditors, energy service companies, energy efficient equipment manufacturers, and banks and financial institutions in Madhya Pradesh. These awareness programs will be assessed at the end of each year; and based on this assessment, the following years' program will be modified to improve it. The TA will allocate resources for 3 years to support these awareness programs.

4. Activity 3: Finance Operational and Financial Audits

13. This activity will finance annual financial and operational audits for the first 5 years of the ECF's operations. The audits will entail independent reviews and evaluations of the ECF's operational activities and identify opportunities to improve the effectiveness of the ECF's risk management processes and corporate governance. The audit will provide reasonable assurance about the accuracy, timeliness, and completeness of financial and regulatory reports of the ECF. Audits will be conducted by an independent audit firm engaged by GOMP, and copies of audit reports will be shared with ADB within 6 months from the close of the accounting period and posted on the ECF web page.

D. Cost and Financing

14. The TA is estimated to cost the equivalent of \$2,100,000. ADB will finance \$1,700,000 from the Second Danish Cooperation Fund for Renewable Energy and Energy Efficiency in Rural Areas administered by ADB on a grant basis. GOMP will finance the equivalent of \$400,000 in the form of in-kind contributions. Detailed cost estimates and financing plan are in Appendix 2.

E. Implementation Arrangements

15. The Energy Department (ED) of GOMP will be the Executing Agency. It will set up a project management unit (PMU) and appoint a senior staff member as the project director to implement activities under the TA. A steering committee will be established and chaired by the energy secretary of GOMP.⁴ It will have five members, and at least one member will have solid experience in fund management and energy conservation activities. The committee, which will meet twice a year, will be mandated to provide policy oversight for TA activities. ADB will attend steering committee meetings when relevant staff are available. The PMU will develop a detailed project implementation plan in the first month of TA effectiveness. TA evaluation results will be made publicly available on the ADB website. GOMP will provide office space, furniture, and

⁴ The steering committee will be constituted at TA inception.

logistical and administrative support to the PMU. The TA will be implemented over 60 months, from November 2008 to November 2013.

16. GOMP and ADB agreed to partially delegate TA implementation to the ED to improve effectiveness.⁵ ADB has assessed the ED's procurement capacity (the Procurement Capacity Summary Assessment Report is in Supplementary Appendix A). The assessment confirmed that the ED has the capacity to implement a partially delegated TA with assistance from an individual national project implementation consultant (PIC). In the partial delegation context, the ED through its PMU with assistance from the PIC will be responsible for (i) implementation of TA activities; (ii) facilitation of all paperwork for recruitment of consultants (iii) selection and engagement of all national consultants except the PIC, financial expert, and long term capacity development expert; and (iv) procurement of equipment, and organization of national workshops and an international study tour. All procurements under the TA will comply with the procurement plan presented in Appendix 3. ADB will be responsible for overall guidance of the TA, and making final decisions on the procurement of equipment, the delegated recruitment of consultants, and the workshops and study tours. PIC will be hired at inception and will attend ADB's procurement seminar immediately. In addition, ADB's Central Operations Services Office will participate in ADB's TA inception mission and will conduct necessary trainings for the PIC and members of PMU. The project director will oversee day to day implementation of the TA activities. The PIC will coordinate activities of all TA components and assist the PMU with timely TA implementation. The PIC will report to ADB and project director simultaneously.

17. The TA grant proceeds will be disbursed in line with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time). Details of the implementation arrangements including disbursement arrangements, the extent of ADB oversight of delegated activities and procurement plan are provided in Appendix 3. All consultants will be hired in accordance with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time). The functional responsibilities for the consultants are described in Appendix 4. The fund manager will be engaged in compliance with Section 2.41 of the same guidelines. Office equipment such as computers, printer and photocopy machine and materials to be financed by the TA will be procured using the shopping method, and will be in accordance with ADB's *Procurement Guidelines* (2007, as amended from time to time). At TA completion, the equipment will be transferred to the government agency using it.

18. Consistent with its commitment to good governance, accountability and transparency, implementation of the TA will adhere to ADB's *Anticorruption Policy* (1998, as amended to date)

IV. THE PRESIDENT'S RECOMMENDATION

19. The President recommends that the Board approve ADB administering technical assistance not exceeding the equivalent of \$1,700,000 to the Government of India to be financed on a grant basis by the Second Danish Cooperation Fund for Renewable Energy and Energy Efficiency in Rural Areas for Facilitating the Operations of the Energy Conservation Fund "Energy Smart" in Madhya Pradesh.

⁵ To increase ownership of TA projects and improve sustainability of project benefits, ADB may, in particular circumstances, delegate to a borrower (delegated TA) the responsibility to recruit and supervise TA consultants, according to ADB's *Guidelines on the Use of Consultants*. The level of delegation would be akin to "low level of EA (executing agency) delegation" under ADB. 2008. *Increasing the Impact of the Asian Development Bank's Technical Assistance Program*. Manila.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
<p>Impact Electricity shortages eliminated at least cost to Madhya Pradesh</p>	<p>Gap between electricity demand and supply in Madhya Pradesh eliminated by 2013</p>	<p>Central Electricity Authority of India Annual Report</p>	<p>Assumptions Broad adoption of energy efficiency principles across Madhya Pradesh</p> <p>Sustained reductions in electricity losses</p> <p>Successful procurement of new generation</p> <p>Risks Rapid and unplanned acceleration in electricity demand</p> <p>Loss-reduction programs unsustainable</p>
<p>Outcomes Facilitate the energy efficiency program of Madhya Pradesh by financially supporting activities of the ECF</p> <p>Enable the ECF to be financially stable in the first 5 years and self-sustaining thereafter</p> <p>Create awareness among consumers and financiers</p> <p>Facilitate implementation of energy conservation measures in Madhya Pradesh</p>	<p>Energy efficiency advice and funding available to all commercial and industrial electricity consumers in Madhya Pradesh by 2011</p>	<p>GOMP Energy Department periodic reports</p> <p>ECF periodic reports</p> <p>ECF and/or GOMP surveys</p>	<p>Assumption Timely and adequate support from GOMP Energy Department</p>
<p>Outputs</p> <p>Support the operations of the ECF.</p> <p>Facilitate portfolio development</p> <p>Assist outreach and awareness</p> <p>Finance operational and financial audit</p>	<p>Establishment of the ECF by March 2009</p> <p>The ECF operationally active by April 2009</p> <p>10 energy audits per year until 2012</p> <p>Pipeline of 20 projects that are ready for financing from the ECF by 2012</p> <p>3 demonstration projects arising from the energy audits implemented by 2011</p>	<p>ECF periodic reporting</p> <p>ECF audit reports</p>	<p>Assumptions Private fund managers are willing to participate despite relatively small fund size.</p> <p>Commercial and industrial electricity consumers are willing to participate.</p> <p>Risk Lack of interest and too few implemented projects make the ECF unsustainable.</p>

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
	<p>4 ECF-funded energy efficiency projects implemented by 2012</p> <p>5 generic training programs delivered by 2010</p> <p>10 structured participant-specific training programs delivered by 2011</p> <p>5 site visits to facilities demonstrating successful energy efficiency investment by 2012</p> <p>1 study tour to successful energy conservation funds by 2010</p> <p>1 annual audit of ECF activities by 2009</p>		
<p>Activities with Milestones</p> <ul style="list-style-type: none"> • Prepare cabinet note by September 2008 • Secure approval for the ECF by cabinet by November 2008 • Register the ECF by December 2008 • Prepare bid documents for selection of fund manager by December 2008 • Call for bids for fund manager by January 2009 • Select fund manager by February 2009 • Carry out communication and outreach activities for the ECF by June 2009 • Select projects for energy audits by July 2009 • Select accredited auditors for energy audits by July 2009 • Carry out energy audits (ongoing—first batch by November 2009) • Identify projects for detailed project reports (ongoing—first batch by December 2009) • Select projects for funding by the ECF (ongoing—first batch by February 2010) • Complete agreements for funding of projects (ongoing—first batch by February 2010) • Carry out due diligence for private investors to invest (ongoing—first batch by March 2010) • Select private investors for investing in the ECF (ongoing—first batch by April 2010) • Receive funds (ongoing—first batch by May 2010) • Carry out monitoring and verification (ongoing) 		<p>Inputs</p> <ul style="list-style-type: none"> • ADB: \$1.7 million TA financed from the Second Danish Cooperation Fund for Renewable Energy and Energy Efficiency in Rural Areas • Government: \$400,000 in-kind contribution 	

ECF = Energy Conservation Fund, GOMP = government of Madhya Pradesh, TA = technical assistance.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
A. Danish Cooperation Fund for Renewable Energy in Rural Areas^a	
1. Consultants	
a. Remuneration and Per Diem, National Consultants	300.0
b. Local Travel	32.0
c. Reports and Communications	15.0
2. Equipment ^b	8.0
3. Training, Seminars, and Conference	90.0
4. Fund Manager	470.0
5. Energy Audits	600.0
6. Financial Audits	50.0
7. Contingencies	135.0
Subtotal (A)	1,700.0
B. Government Financing^c	
1. Fund Registration	200.0
2. Remuneration and Per Diem of Counterpart Staff	200.0
Subtotal (B)	400.0
Total	2,100.0

Notes:

^a The technical assistance amount will be financed from the Second Danish Cooperation Fund for Renewable Energy and Energy Efficiency in Rural Areas administered by the Asian Development Bank.

^b Equipment purchased under the technical assistance such as computers, printer and photocopy machine will be turned over to the Energy Conservation Fund after technical assistance completion.

^c The government of Madhya Pradesh's contribution will be in the form of registration expenses and counterpart staff.

Source: Asian Development Bank estimates.

IMPLEMENTATION AND FUND FLOW ARRANGEMENTS AND PROCUREMENT PLAN

A. Implementation and Fund Flow Arrangements

1. The Energy Department (ED) of the Government of Madhya Pradesh (GOMP) will be the Executing Agency. It will set up a project management unit (PMU) and appoint a senior staff member as the project director to implement activities under the technical assistance (TA). A steering committee will be established and chaired by the energy secretary of GOMP.¹ It will have five members, and at least one member will have solid experience in fund management and energy conservation activities. The committee, which will meet twice a year, will be mandated to provide policy oversight for TA activities. The Asian Development Bank (ADB) will attend steering committee meetings when relevant staff are available. The PMU will develop a detailed project implementation plan in the first month of TA effectiveness. TA evaluation results will be made publicly available on the ADB website. GOMP will provide office space, furniture, and logistical and administrative support to the PMU. The TA will be implemented over 60 months, from October 2008 to October 2013.

2. GOMP and ADB agreed to partially delegate TA implementation to the ED to improve effectiveness.² ADB has assessed the ED's procurement capacity (the procurement Capacity Summary Assessment Report is in Supplementary Appendix A). The assessment confirmed that the EA has the capacity to implement a partially delegated TA with assistance from an individual national project implementation consultant (PIC). In the partial delegation context, EA through its PMU and with assistance from the PIC will be responsible for (i) implementation of TA activities; (ii) facilitation of all paperwork for recruitment of consultants; (ii) selection and engagement of all national consultants except the PIC, financial expert, and long term capacity development expert; and (iii) procurement of equipment, and organization of national workshops and an international study tour. All procurements under the TA will comply with the procurement plan agreed between ADB and the EA. ADB will be responsible for overall guidance of the TA, and making final decisions on the procurement of equipment, the delegated recruitment of consultants, and the workshops and study tours. PIC will be hired at inception and will attend ADB's procurement seminar immediately. In addition, ADB's Central Operations Services Office will participate in ADB's TA inception mission and will conduct necessary trainings for the PIC and members of PMU. The project director will oversee day to day implementation of the TA activities. The PIC will coordinate activities of all TA components and assist the PMU with timely TA implementation. The PIC will report to ADB and project director simultaneously.

3. All consultants will be hired in accordance with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time). The functional responsibilities for the consultants are described in Appendix 4. The fund manager will be engaged in compliance with Section 2.41 of the same guidelines. Office equipment such as computers, printer and photocopy machine and materials to be financed by the TA will be procured using the shopping method, and will be in accordance with ADB's *Procurement Guidelines* (2007, as amended from

¹ The steering committee will be constituted at TA Inception.

² To increase ownership of TA projects and improve sustainability of project benefits, ADB may, in particular circumstances, delegate to a borrower (delegated TA) The responsibility to recruit and supervise TA consultants, according to the *Guidelines on the Use of Consultants*. The level of delegation would be akin to "low level of EA [executing agency] delegation" under ADB. 2008. *Increasing the Impact of the Asian Development Bank's Technical Assistance Program*. Manila.

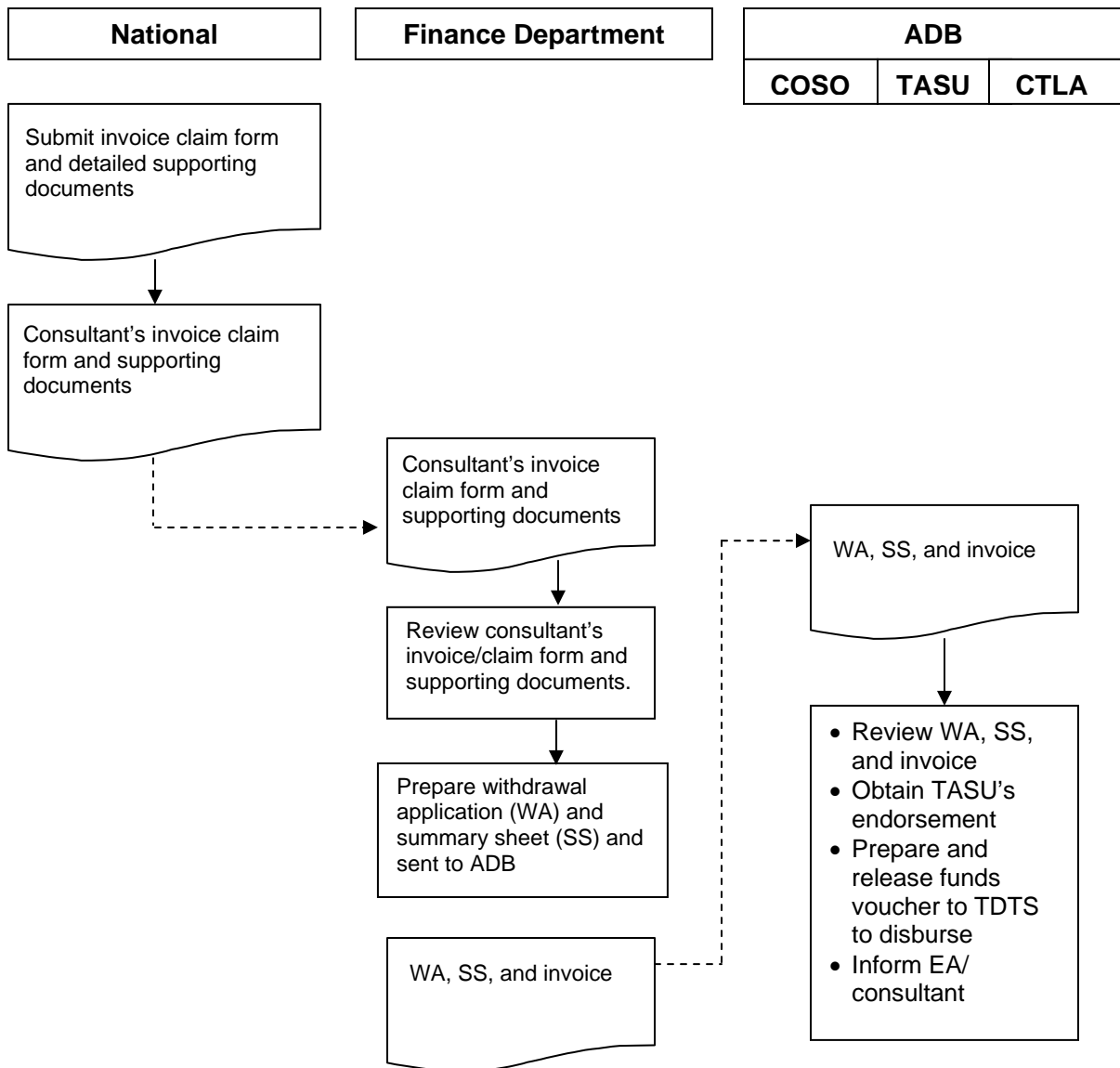
time to time). At TA completion, the equipment will be transferred to the government agency using it.

4. The TA grant proceeds will be disbursed in line with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time). For withdrawal of TA grant funds, the ED will submit to ADB the original withdrawal application, signed by authorized representative, and a summary sheet and copies of supporting documents. To facilitate implementation of the TA activities, the ED will establish and manage an imprest account in a bank acceptable to ADB after the TA becomes effective. The ceiling of the imprest account will be \$100,000 and should be claimed based on the detailed estimated expenditure costs. The interest earned on the TA grant in the imprest account can be used to cover the bank charges and any other remittance fees. Upon completion of the TA grant and before closing of the imprest account, any unutilized interest should be returned to ADB. If the remittance fees and other bank charges are higher than the amount of interest earned, the amount in excess of interest earned could be charged to the miscellaneous administration expenditures of the TA. To simplify the documentation process, the statement of expenditure will be used to liquidate and replenish the imprest account, and to reimburse eligible costs for any individual payment not exceeding \$10,000. Expenditures exceeding the statement of expenditure will be reimbursed, replenished, and liquidated based on the full supporting documentation. The ED has implemented a number of ADB loan projects, and has an adequate financial system in place. The ED will maintain a separate account for the TA grant and have such accounts audited annually; the audit reports will be submitted to ADB within 6 months after the end of the fiscal year. The ED will retain the original supporting documents for the expenditures under TA for 5 years after the completion of the TA and will make these documents available to ADB mission staff for review upon request within the indicated retention period. Figures A3.1 and A3.2 show a diagram of the flow of funds and documents.

5. Consistent with its commitment to good governance, accountability, and transparency, ADB reserves the right to review and examine, directly or through its agents, any alleged corrupt, fraudulent, collusive, or coercive practices relating to activities under the TA. In this regard, investigation of government officials, if any, will be requested by ADB to be undertaken by the Government of India. To support these efforts, relevant provisions of ADB's *Anticorruption Policy* (1998, as amended to date) will be included in all contracts under the TA. In particular, all contracts financed by ADB in connection with the TA will include provisions specifying the right of ADB to audit and examine the records and accounts of ED and all contractors, suppliers, consultants, and other service providers as they relate to the activities under the TA.

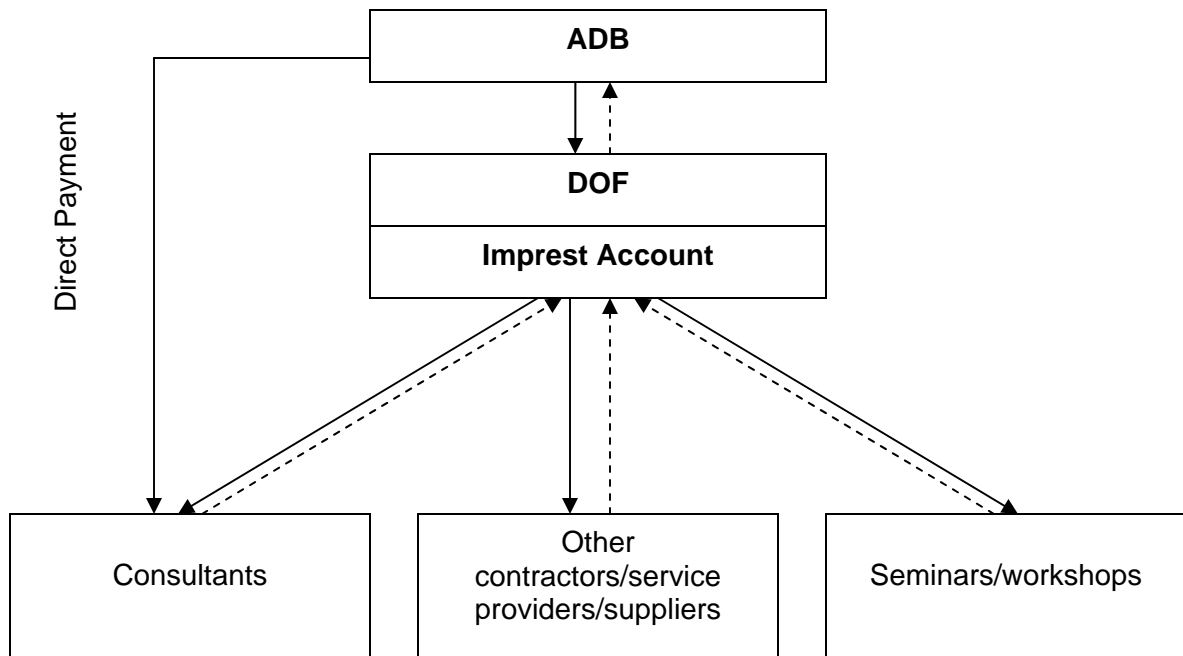
6. Annual progress reports will be prepared for the TA for review by ADB. The reports will include a description of progress and problems, and a summary of financial accounts that will consist of TA expenditures during the period, year to date, and total to date. Progress on overall progress and compliance with conditions of the TA agreement also will be included in the progress reports. Further, the progress reports will include an evaluation of issues or problems faced by the EAs and recommended remedial actions. A project completion report will be submitted within 3 months of the completion of each activity of the TA. The EAs will maintain separate accounts for the TA. Within 6 months of the close of the financial year, the EAs will submit audited TA account. An independent auditor acceptable to ADB will be hired by the EAs to conduct the audit.

Figur A3.1: Document Flow Diagram for Payment



COSO = Central Operations Services Office; CTLA = Controller's Loan Administration Division; EA = Executing Agency; SS = summary sheet; TASU = Technical Assistance Supervising Unit; TDTS = Treasury Services Division; WA = withdrawal application
 Source: ADB staff

Figure A3.2: Funds Flow Diagram



- ▶ Funds flow to and from imprest account
- ▶ Documents submission (flow) WA, invoice, supporting document

ADB = Asian Development Bank, DOF = Department of Finance, WA = withdrawal application
 Source: ADB staff

B. Procurement Plan

Project Name: Energy Smart—Facilitating the Operations of the Energy Conservation Fund in Madhya Pradesh	TA Number: 41681
Delegated TA Amount: \$1,700,000	Executing Agency: Energy Department of the government of Madhya Pradesh
Date of First Procurement Plan: 14 August 2008	

1. Project Procurement Thresholds

7. Except as ADB may otherwise agree, the following process thresholds will apply to procurement of goods and works.³

Procurement of Goods and Works and Training Packages	
Method	Threshold
Shopping for Goods	<= \$100,000
Shopping for Goods—Direct Purchase from a Supplier	<= \$10,000 (see also comments below)
Fixed Budget Selection	None, Threshold for Type of Proposal (FTP/STP/BTP)
Quality and Cost-Based Selection (QCBS)	None, Threshold for Type of Proposal (FTP/STP/BTP)
Individual Consultant Selection	None, see comments below

BTP = biodata technical proposal, FTP = full technical proposal, QCBS = quality- and cost-based selection, STP = simplified technical proposal

2. ADB Prior or Post Review

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

Procurement of Goods, Works, and Training Services		
Procurement Method	Prior or Post	Comments
Shopping for Goods	Post	Usage subject to <i>Procurement Guidelines</i> (2007, as amended from time to time), para. 3.5 and PAI 3.04 C. 4. and 5.
Shopping for Goods—Direct Purchase from a Supplier	Post	Usage subject to PAI 3.04 C. 6.
Recruitment of National Consulting Entities		
Quality- and Cost-Based Selection (QCBS) – Fund Manager	Prior	Selection delegated to EA, which will make the following submissions for ADB approval: (i) draft advertisement, proposed EOI template, EOI evaluation criteria; (ii) shortlist, draft RFP (STP) and evaluation criteria; (iii) RFP (STP) evaluation report; (iv) minutes of negotiation and draft lump sum contract following ADB's <i>Guidelines on the Use of Consultants</i> (2007, as amended from time to time)
Fixed Budget Selection (FBS) – (1) Financial and Operational	Prior	Selection delegated to EA, which will make the following submissions for ADB approval: (i) draft

³ Procurement Capacity Summary Assessment Report is provided in Supplementary Appendix A. Questionnaire on Executing Agencies Procurement Capacity and General Procurement Environment Assessment are attachments 1 and 2.

Auditor, (2) Energy Auditor		advertisement, proposed EOI template, EOI evaluation criteria; (ii) shortlist, draft RFP (BTP) and evaluation criteria; (iii) RFP (BTP) evaluation report; (iv) minutes of negotiation and draft lump sum contract following ADB's <i>Guidelines on the Use of Consultants</i> (2007, as amended from time to time)
Recruitment of Individual Consultants		
Individual Consultant Selection - Energy Auditor Capacity Development Expertise (short term/multiple)	Prior	Selection delegated to EA, which submits to ADB: (i) shortlist of three candidates, CVs, and evaluation and/or ranking of individual consultants, (ii) draft contracts for selected individuals following ADB's <i>Guidelines on the Use of Consultants</i> and in accordance with PAI 2.03 Part B.
Individual Consultant Selection - (1) Project Implementation Consultant, (2) Financial Expert, (3) Capacity Development Expert (long term)		ADB selects and engages individual consultant (in cooperation and concurrence with EA) in accordance with PAI 2.03 Part A and in accordance with ADB's <i>Guidelines on the Use of Consultants</i> .

3. Consulting Services Contracts

Package	Contract Value (\$'000)	Single / Multiple Contracts	Type of Consultant	Forecasted Advertisement Date	Comments
Fund Manager	370	Single	Entity	March 2009	EA has been delegated responsibility for selection and engagement, applying QCBS and STP as described above.
Energy Audit	300	Multiple	Individual or Entity ^a	March 2009	EA has been delegated responsibility for selection and engagement as described above.
Financial and Operational Audit	55	Single	Entity	March 2010	EA has been delegated responsibility for selection and engagement, applying FBS and BTP as described above.
Financial Expert	20	Single	Individual	November 2008	ADB is responsible for selection and engagement using ICS.
Project Implementation Consultant	225	Single	Individual	November 2008	ADB is responsible for selection and engagement using ICS.
Capacity Development Expert	180	Single	Individual	January 2009	ADB is responsible for selection and engagement using ICS.
Capacity Development Expert	50	Multiple	Individual	January 2009	EA has been delegated responsibility for selection and engagement as described above. engagement using ICS.

^a Whether an entity or an individual will be engaged to undertake an energy audit will be determined with reference to the size and complexity of audit.

TERMS OF REFERENCE FOR CONSULTANTS

A. Project Implementation Consultant (36 person-months)

1. A national project implementation consultant will have a deep understanding of energy sector experience through large firms in India. The consultant also will have a clear understanding of financial issues in the power sector and will be familiar with the technical assistance (TA) implementation procedures of the Asian Development Bank (ADB). The consultant will be used over 4 years, full-time in the first and second year of TA implementation and intermittently in the third and fourth years. The consultant will assist ADB and the government of Madhya Pradesh (GOMP) with the following:

- (i) support project management unit, to be established in the Energy Department of GOMP, with monitoring, evaluation, and reporting;
- (ii) assist GOMP in ensuring that all steps under the TA are undertaken properly and completed activities will deliver the performance and operational flexibility of the Energy Conservation Fund (ECF);
- (iii) work closely with GOMP and the financial expert to facilitate the establishment of the ECF;
- (iv) develop a 5-year work plan for the project management unit and revise when needed;
- (v) assist GOMP in recruiting the fund manager, which will entail (a) issuing a call for proposals, (b) evaluating proposals at the end of the submission period qualitatively with a numerical scorecard, (c) developing a long list of fund managers, (f) inviting them to Madhya Pradesh for initial interviews, (g) evaluating interviews, (h) preparing a short list of fund managers who will be considered for due diligence, and (i) assisting the due diligence process;
- (vi) assist GOMP in recruiting (i) energy auditors, (ii) capacity development experts, (iii) financial and operational auditors, and (iv) fund manager;
- (vii) work closely with capacity development consultants, detect potential projects, identify suitable energy auditors to conduct energy audits for prospective projects, and assist ADB in short-listing energy auditors, as well as the recruitment and selection process;
- (viii) review the detailed project reports for potential projects, and advise GOMP on the progress of the pipeline development activities;
- (ix) work closely with the fund manager, capacity development consultants, and energy auditors and support operations of the ECF;
- (x) continuously assess whether the management and supervision of project activities are efficient, and recommend ways to improve efficiencies;
- (xi) assist GOMP in developing and issuing specialized fundraising documents;
- (xii) assist GOMP in administering advance payment facility; and
- (xiii) report to ADB and GOMP on the activities of all consultants under the TA.

B. Financial Expert (2 person-months)

2. The financial expert will be a chartered accountant with a track record in establishing at least two similar funds (at least Rs30 million) in the past 4 years. Expertise should include advising on fund structure and design. The financial expert will:

- (i) assist GOMP in drafting and finalizing the articles of association of the ECF;
- (ii) carry out deed of registration, and;
- (iii) develop role of parties note.

C. Capacity Development Expertise (24 person-months)

3. One capacity development expert with training and energy efficiency expertise will be hired to design and coordinate outreach and awareness programs for 18 months over 3 years with the following responsibilities:

- (i) establish working relationships with various stakeholders, such as industry associations or clusters, industries, policy makers, energy service companies (ESCOs), energy auditors, energy efficiency equipment manufacturers, technology solution providers, Bankers, and financial institutions;
- (ii) identify major energy consumer groups such as industry, commercial, and government buildings; utilities; and others with energy conservation potential;
- (iii) compile a list of energy consumers to be included in the target group for awareness program (consumers groups should include industries, organizations, institutions, policy makers, ESCOs, energy auditors, energy efficiency equipment manufacturers, technology solution providers, bankers, and financial institutions);
- (iv) structure minimum five generic training programs and 10 participant-specific training programs; develop detailed background material and training manuals; course materials for participants;
- (v) circulate widely written course materials for the use of people in the sector;
- (vi) organize learning visits to successful energy efficiency project sites to help assimilate the technological innovation from select stakeholders on different facets of energy efficiency such as energy efficiency technologies and technology management and financing;
- (vii) organize frequent half-day exclusive media sensitization workshops and roundtable discussion on the benefits of energy efficiency and the ECF;
- (viii) ensure all these programs will be interactive and encourage participants to share their experiences and discuss issues, which are important from a practical point of view;
- (ix) prepare a feedback report after each event with recommendations for the following training sessions; and
- (x) formulate a time-bound action plan for the events including designing an information brochure, printing and distribution and/or dispatching brochure and/or invitations and registration forms to delegates.

4. Additional international capacity development expertise with sector focus in various sectors where energy efficiency projects have high potential will be hired. The total person month will be allocated to this expertise will be 6 months.

D. Energy Auditors

5. Energy auditors, either individual or firms, will be recruited intermittently to undertake ten energy audits in the first 3 years. All potential energy auditors will be accredited by the accreditation committee and approved by the executive committee of the Government's Bureau of Energy Efficiency (BEE). Energy auditors will follow BEE's guidelines and terms of reference for energy audits.

E. Financial and Operational Auditor

6. An independent firm will be engaged to undertake financial and operational audits throughout the first five years of the ECF's operations. The auditor will conduct independent reviews and evaluations of ECF's operational activities and provide the opportunity to improve the effectiveness of ECF's risk management processes and corporate governance. The audits will focus on the accuracy, timeliness and completeness of financial regulatory reports of ECF.

F. Fund Manager

7. ADB is assisting the GOMP to establish the Madhya Pradesh Energy Conservation Fund (ECF) for supporting investments in energy efficiency (EE) projects in Madhya Pradesh. The primary objectives of the ECF will be; (i) facilitating identification, development, and implementation of energy efficiency projects, and support investments in energy efficiency; and (ii) promoting development of and facilitate transformation of the market for energy efficient products and services thereby promoting economic growth and sustainable development in Madhya Pradesh through better utilization of energy resources. The ECF will provide support for identification, development and implementation of energy efficiency projects/ activities by end-users at sites located within the state of Madhya Pradesh. The areas of support from the ECF will be:

Areas of support from the Energy Conservation Fund

Sector	Entity	Project/ Activity
Industrial sector	SME units	In-plant EE projects
	Smaller large units	In-plant EE projects
	ESCOs	In-plant EE projects in SME units and smaller large units
Commercial sector	Building owners	Building EE projects
	ESCOs	Building EE projects in privately owned buildings
Government sector	ESCOs	Building EE projects in government owned buildings
	ESCOs	Streetlighting and Water pumping EE projects in Urban Local Bodies (Municipal Corporations, Municipalities)
Residential sector	Domestic Consumers	Purchase of EE appliances

EE = energy efficiency, ESCO = energy service companies, SME = small medium enterprises
Source: ADB staff.

8. To provide this support, the proposed products of the ECF or the schemes to be operated under the ECF would be the following:

- (i) soft loan scheme for energy efficiency projects,
- (ii) express assistance scheme for energy efficiency projects,
- (iii) project development assistance scheme for energy efficiency projects,
- (iv) credit guarantee scheme for energy efficiency projects,
- (v) equity assistance loan scheme for energy efficiency projects,
- (vi) eligibility support scheme for energy efficiency projects,
- (vii) rebate scheme for purchase of energy efficient appliances, and
- (viii) soft loan scheme for purchase of energy efficient appliances.

9. The ECF will be administered by a private fund manager, which will be an independent contractor engaged on a contractual basis. The fund manager will be hired through a call for proposals, which will be issued to the market. In assessing the proposals, the following selection criteria will be utilized:

- (i) The credibility and thoughtfulness of the proposal and the fund manager's strategy;
- (ii) the fund manager's target market(s), investment strategy, and marketing and project sourcing strategy;
- (iii) the track record of the prospective fund manager in the following areas: (a) proven experience and achievements in successfully managing private equity, venture capital, or special purpose investment funds in developing countries; (b) technical competence in energy project appraisal and experience in working with various sectors; (c) adequate financial management and accounting capacity to meet fiduciary requirements; and (d) in-house capacity or access to a reputable network of local or regional entities to deliver enterprise development services to prospective entrepreneurs and project developers;
- (iv) the team cohesiveness of the fund manager, as well as its competitive positioning relative to other funds; and
- (v) the appropriate capacity, management systems, and legal authorities to carry out the proposed investment activity, as well as the ability and systems in place to provide the proposed enterprise development support.

10. The fund manager will be engaged for an initial period of three years. The contract may be renewed for a further period of 2 years subject to satisfactory performance, as determined by the Board of ECF. After five years, there will be a fresh bidding process for selection of a fund manager, for which the incumbent fund manager will be eligible to apply. The fund manager will be paid a fixed fee for the first two years. In the third year, the payment will comprise a fixed component and a performance based component. In subsequent years, payment will be entirely performance based.

11. Based on the draft terms of reference (TOR), GOMP will issue a request for proposal inviting proposals for appointment of the fund manager. The selected bidder will be engaged by the ECF on a contractual basis. The final terms of the contract may have provisions that are different from this draft TOR to suitably address and incorporate any issues that may arise during consideration of the bids received and the bidding negotiations.

12. The fund manager's primary responsibility will be the administration, implementation, and ongoing development of the products and programs of the ECF. The functions and responsibilities of the fund manager would include, but not be limited to:

1. Product/ Program Development, Planning and Budgeting

- (i) Develop the detailed design of the proposed products of the ECF;
- (ii) prepare 5-year strategic plan, rolling three year business plan, and annual work plan;
- (iii) prepare general descriptions and budgets of ECF products and programs;
- (iv) prepare initial technical and/ or market assessment reports necessary for development of strategies and initial designs of products and programs;
- (v) prepare detailed designs of new products and programs of the ECF and, wherever necessary, propose changes to existing ones based on experience-to-date; and
- (vi) facilitate development of stakeholder and public participation in planning process.

2. Product/ Program Administration and Management

- (i) Develop and implement the processes and procedures for administration and management of the products/ programs of the ECF;
- (ii) obtain progress and status reports from partner institutions;
- (iii) monitor progress and status and maintain conformity to the timelines and indicators laid down in the business plan; and
- (iv) develop and implement quality assurance standards and tracking protocols.

3. Product/Program Delivery and Implementation

- (i) Develop measurement and verification (M&V) procedures and/ or conduct M&V and/ or oversee M&V compliance;
- (ii) promote and market the products and program of the ECF to potential targets individually or collectively through appropriate communication and outreach activities;
- (iii) coordinate with state designated agency to develop and implement programs and activities to complement and assist in successful implementation of the ECF's products/ programs.

4. Product/Program Assessment and Evaluation

- (i) Assess impacts, outcomes and/or cost-effectiveness of products and programs;
- (ii) evaluate effectiveness of program processes and administration; and
- (iii) make all data, records and information available for evaluation by any external agency appointed for this purpose by the Board of ECF.

5. Financial Management and Investment

- (i) Disburse amounts from the ECF to partner institutions as per agreed contractual arrangements and obligations;
- (ii) manage cash flow and treasury operations;
- (iii) recommend investment options for funds awaiting disbursement;
- (iv) maintain records of financial transactions and accounts and prepare financial statements as required by law and by the board of ECF; and
- (v) ensure audit of accounts by auditor appointed by the board of ECF.

6. General Administration and Coordination

- (i) Manage overall budget for portfolio of ECF products and programs;
- (ii) hire and manage staff and/ or sub-contractors for program management and implementation;
- (iii) prepare TORs and RFPs for contracts;
- (iv) award and manage contracts with contractors;
- (v) promote and market the products/ programs of the ECF to potential partners individually or collectively;
- (vi) prepare and enter into contracts/ agreements/ MOUs with participating banks, financial institutions, financial intermediaries, and other agencies (partner institutions);
- (vii) maintain a centralized information system for effective administration and management of ECF products and programs;
- (viii) develop and maintain close coordination and working relationships with partner institutions;

- (ix) develop and maintain close coordination and working relationships with state designated agency and the Bureau of Energy Efficiency; and
- (x) develop and maintain close coordination and working relationships with all stakeholders.

7. Reporting

- (i) Prepare quarterly status report and annual report to the Board of ECF on the ECF's activities and financial status; and
- (ii) prepare reports to the Board of ECF and its sub-committees and advisory committees, policy makers, GOMP, regulatory bodies, and the public, as required and requested.