

**CHINA**

**RENEWABLE ENERGY DEVELOPMENT PROJECT**

**TECHNOLOGY IMPROVEMENT COMPONENT**

**Project Implementation Plan**

Prepared by

Project Management Office (PMO)  
GEF/World Bank Assisted China Renewable Energy Development Project  
State Economic and Trade Commission (SETC)  
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## Table of Content

<b>1</b>	<b>OBJECTIVE AND SCOPE .....</b>	<b>4</b>
<b>2</b>	<b>CRITICAL SUCCESS FACTORS.....</b>	<b>5</b>
2.1	INVESTMENT.....	5
2.2	INSTITUTIONAL STRENGTHENING.....	5
<b>3</b>	<b>MANAGEMENT STRUCTURE .....</b>	<b>5</b>
3.1	INSTITUTIONAL STRUCTURE .....	5
3.2	RESPONSIBILITIES .....	7
<b>4</b>	<b>IMPLEMENTATION OF THE FIVE ELEMENTS .....</b>	<b>9</b>
4.1	GRANT-ASSISTED TECHNOLOGY IMPROVEMENT PROJECTS (COMPETITIVE GRANT FACILITY).....	9
4.1.1	<i>Eligible Industries and Institutions</i> .....	9
4.1.2	<i>Pre-Selection and Proposal Solicitation &amp; Evaluation Process</i> .....	11
4.1.3	<i>Areas to be Supported</i> .....	16
4.1.4	<i>TI Activities Supported</i> .....	16
4.1.5	<i>Project Size</i> .....	19
4.1.6	<i>Budget</i> .....	19
4.1.7	<i>Disbursement</i> .....	19
4.1.8	<i>Reporting</i> .....	19
4.2	GRANT-ASSISTED SMALL TECHNOLOGY IMPROVEMENT PROJECTS (QUICK RESPONSE FACILITY).....	19
4.2.1	<i>Eligible Industries and Institutions</i> .....	20
4.2.2	<i>Selection Procedure</i> .....	20
4.2.3	<i>Areas and Activities Supported</i> .....	20
4.2.4	<i>Project Size</i> .....	21
4.2.5	<i>Budget</i> .....	22
4.2.6	<i>Disbursement</i> .....	22
4.2.7	<i>Reporting and Review</i> .....	22
4.3	INVESTMENT PROJECTS ASSISTED BY LOANS.....	24
4.3.1	<i>Eligible Industries and Institutions</i> .....	24
4.3.2	<i>Procedures</i> .....	24
4.3.3	<i>Assistance Provided</i> .....	25
4.3.4	<i>Reporting</i> .....	25
4.3.5	<i>Review</i> .....	25
4.4	PROJECT MANAGEMENT .....	25
4.4.1	<i>Budget</i> .....	26
4.4.2	<i>Disbursement</i> .....	26
4.4.3	<i>Recruitment</i> .....	26
4.4.4	<i>Activities</i> .....	27
4.5	AWARENESS BUILDING AND PROGRAM SUPPORT .....	27
4.5.1	<i>Activities to be Supported</i> .....	27
4.5.2	<i>Budget</i> .....	28
4.5.3	<i>Disbursement</i> .....	28
4.5.4	<i>Authorization</i> .....	28
<b>5</b>	<b>PERFORMANCE INDICATORS AND END OF PROJECT TARGETS .....</b>	<b>29</b>
<b>6</b>	<b>WORLD BANK SUPERVISION AND MID-TERM REVIEW.....</b>	<b>31</b>
<b>7</b>	<b>PERFORMANCE MONITORING .....</b>	<b>31</b>
<b>8</b>	<b>REPORTING .....</b>	<b>32</b>
8.1	INDUSTRIES AND INSTITUTIONS RECEIVING GRANTS FOR TI.....	32
8.2	PMO.....	32
8.2.1	<i>Quarterly TI Component Monitoring Report</i> .....	33

8.2.2	<i>Bi-Annual TI Component Monitoring Reports</i> .....	33
8.2.3	<i>Annual Plan for the Technology Improvement Component</i> .....	33
8.2.4	<i>Midterm Review Report</i> .....	34
8.2.5	<i>Component Completion Report</i> .....	34
<b>9</b>	<b>COMPONENT BUDGET</b> .....	<b>35</b>
<b>10</b>	<b>PROCUREMENT</b> .....	<b>35</b>
10.1	INVESTMENT PART .....	35
10.2	INSTITUTIONAL STRENGTHENING PART .....	36
APPENDIX 1.	DUTIES OF THE DIRECTOR OF THE PMO, RELATED TO THE TI COMPONENT .....	37
APPENDIX 2.	DUTIES OF THE TIC MANAGER .....	38
APPENDIX 3.	DUTIES OF THE NATIONAL PROJECT SOLICITATION OFFICER .....	40
APPENDIX 4.	DUTIES OF THE NPEC .....	42
APPENDIX 5.	INSTITUTIONAL ARRANGEMENT CHART .....	44
APPENDIX 6.	IMPLEMENTATION PROCEDURES .....	45
APPENDIX 7.	GRANT DISBURSEMENT FLOW .....	47
APPENDIX 8.	DRAFT FIRST YEAR PLAN (FY 2002) .....	48
APPENDIX 9.	DETAILED SCHEDULE FOR PRE-SELECTION TO CONTRACT CLOSING .....	60
APPENDIX 10.	FORMAT FOR GRANT-ASSISTED TECHNOLOGY IMPROVEMENT PROJECTS .....	61
APPENDIX 11.	BUSINESS PLAN FORMAT .....	79
APPENDIX 12.	TOR FOR THE INTERNATIONAL PROPOSAL SOLICITATION EXPERT .....	81
APPENDIX 13.	TOR FOR THE INTERNATIONAL PROPOSAL EVALUATION EXPERT .....	83
APPENDIX 14.	STANDARD CONTRACT BETWEEN PMO AND PROPONENTS .....	85
APPENDIX 15.	QUARTERLY REPORT .....	90
APPENDIX 16.	BI-ANNUAL REPORT .....	109

## Objective and Scope

The objective of the Technology Improvement (TI) Component is to lower cost and improve quality (if necessary) of PV<sup>1</sup> equipment in China. This component comprises two parts; an investment part and an institutional strengthening part.

- *Investment*: This part will provide financial assistance to industries producing PV equipment, to accelerate technology innovation aimed at reducing costs while providing high quality products and performance. The investment part has three elements:
  - *Grant-Assisted Technology Improvement Projects*: Grants will be provided to share up to 50 percent of the cost of investment projects. Beneficiaries will be selected competitively, based on proposals submitted by companies or institutions, in response to invitations that will be issued annually by the PMO. Proposals will be evaluated and ranked by technical experts (including international experts), and selected by the PMO based on the ranking, subject to the World Bank no objection.
  - *Grant-Assisted Small Technology Improvement Projects*: Small grants, on a minimum cost-sharing basis of 50 percent, will be provided for urgent small projects. This "Quick Response Facility" has a limited budget and will be administered by the PMO for grant amounts of up to \$ 10,000 per project.
  - *Investment Projects Assisted by Loans*: Concessional loans will be available to companies, through commercial banks and assisted by SETC, for investments such as: purchase of production equipment, follow-up investments to grant-financed activities, or other investment activities related to TI. Terms of the loan are the same as those on SETC's technical retrofitting loans, currently available with 3 to 5 year terms and a subsidy of up to 50 percent of commercial interest rates.
  
- *Institutional Strengthening*: Support will be provided for (a) program management, including monitoring and evaluation, and preparation of the annual plan; and (b) awareness building and program support activities.
  - *Program Management*: the TIC Unit of the PMO will implement The TI Component. This element will provide the resources for this. The program management activities include: solicitation of proposals; evaluation, ranking and selection of the proposals that best contribute to achieving the program objectives; signing contracts with the proponents of the selected proposals; monitoring and evaluation of the progress of contracted work implementation; approval of grant disbursement in relation to progress; taking appropriate action if progress is insufficient; and reporting on the progress of the TI Component to the World Bank and GEF. International advisers will assist in solicitation and evaluation of proposals.
  - *Awareness Building and Program Support*: The TIC Unit will undertake awareness building activities, including workshops, seminars, training and preparation and distribution of program promotion materials. Further, the TIC Unit will undertake activities to support the program, such as data collection, surveys and studies.

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<sup>1</sup> PV equipment also includes small wind turbines (< 500W), which are part of a PV/Wind hybrid system.

## Critical Success Factors

### Investment

The Technology Improvement Component is market based, depending on investments of industry and institutions in technology improvement. Increased investment is necessary for cost reduction and quality improvement of PV components and systems. The success of this part of the Technology Improvement Component depends on the ability of industry and institutions to prepare high quality project proposals (including business plans) for grant or loan financing and on the ability of the TIC Unit to select the proposal that best contributes to achieving the objective of the TI Component.

### Institutional Strengthening

To facilitate increased investment of industry and institutions in Technology Improvement, an enabling environment needs to be created. This does not only include financial resources but also assistance to the industry and institutions to prepare investment proposals, awareness building, training and access to relevant information. Appropriate management of this process is critical for the success of the TI Component.

## Management Structure

### Institutional Structure

**MOF.** The Ministry of Finance is the financial management agency for the GEF projects in China. MOF will manage the Special Account (SA) and disburse grant payments, conduct internal audits of grant use and contract independent external auditors annually to audit the project accounts.

**SETC/PMO.** The State Economic and Trade Commission (SETC) is the implementation agency for the project. A project management office (PMO) has been set up within the SETC to manage implementation. A Director of the PMO, acceptable to the Bank, will be nominated by SETC prior to effectiveness.

**TIC Unit.** Within the PMO a TIC Unit will be established to implement, in close cooperation with other PMO staff, the Technology Improvement Component. The TIC Manager heads the TIC Unit. The TIC Manager will manage the Technology Improvement Component on behalf of the Director of the PMO. The TIC Unit will further be staffed by a National Management Assistant and a National Project Solicitation Officer. National and international consultants will also support the TIC Unit.

**National Project Evaluation Committee.** For the evaluation of proposals received under the Grant Assisted Technology Improvement Projects (Competitive Grants), a National Project Evaluation

Committee (NPEC) will be established. The NPEC will consist of representatives of PV industries, R&D Institutions and government agencies. The TIC Manager will be the chairperson of the NPEC.

## Responsibilities

**Director PMO.** Formal communication to the World Bank, SETC and the target beneficiaries will be the responsibility of the Director of the PMO. Related to the TI Component, it includes the followings:

- authorize payments from the PMO's Special Account
- on behalf of PMO/SETC enter into TI Subgrant Agreements with PV industries and institutions
- issue project accounts
- issue project financial reports
- issue periodic progress and other reports
- submit requests, including relevant documentation, to the World Bank for clarification or for issuing "No Objection" letters when required
- submit the TI Annual Plan to the World Bank for approval (covering 1 July one year to 30 June the next year)
- issue the formal communication with the target beneficiaries such as invitations for submission of proposals, invitations for workshops and training and formal decision on requests for grant funding

A more detailed description of the responsibilities of the Director of the PMO related to the TI Component is given in Appendix 1.

**TIC Manager.** The TIC Manager is responsible for the overall management of the Technology Improvement Component. The duties of the TIC Manager include:

- implementation of the investment part
- implementation of the institutional strengthening part
- monitoring and evaluation of the progress of the TI Component
- preparation of the annual plans, including proposed changes needed based on the evaluation of the progress of the TI Component
- preparation of required documentation for the Director of the PMO
- management of the TIC Unit, including the international experts

To carry out these duties the TIC Manager will be supported by a National Management Assistant and national and international consultants. A more detailed description of the tasks of the TIC Manager is given in Appendix 2.

**National Proposal Solicitation Officer (NPSO).** The tasks of proposal solicitation and evaluation are intentionally separated. This is to guarantee an objective evaluation of all proposals received. The main task of the National Proposal Solicitation Officer, who will be part of the TIC Unit, is to make sure that sufficient proposals of acceptable quality are received. A more detailed description of the tasks of the National Proposal Solicitation Officer is given in Appendix 3.

**NPEC.** The NPEC is responsible for evaluating the ranking of the proposals received under the Grand Assisted Technology improvement Projects (Competitive Grant Facility) by the TIC

Manager. The TIC Manager, with assistance from national and international experts, will prepare a ranking of projects received under the Grant Assisted Technology Improvement Projects (Competitive Grant Facility) and a justification of this ranking (see Appendix 2). This ranking and the justification will be submitted to the NPEC for review and approval.

The specific tasks of the NPEC are:

- review the projects and the ranking of these projects based on the justification given by the TIC Manager.
- if necessary, make modifications to the ranking made by the TIC Manager
- provide the final ranking and select the projects which will receive the grant funding requested (highest ranked proposals)
- submit the projects, ranking and justification to the Director of the PMO for approval and communication to SETC and the World Bank

The NPEC will also play a role in the pre-selection process of industries and institutions participating in the “Competitive Grant Facility” (see 4.1.2). Again, the TIC Manager will prepare a list with proposed pre-selected industries and institutions. The NPEC will:

- review this list and the list with rejected industries and institutions
- if necessary, make modifications to the pre-selected industries and institutions list prepared by the TIC Manager
- prepare the final list with pre-selected industries and institutions
- submit this list to the Director of the PMO for approval and submission to the SETC and the World Bank.

A more detailed description of the duties of the NPEC is given in Appendix 4. Appendix 5 to 7 describe the overall institutional arrangements, implementing procedures and grant disbursement flow.

## **Implementation of the Five Elements**

### **Grant-Assisted Technology improvement Projects (Competitive Grant Facility)**

The objective of this element is to encourage PV industries and related institutions to invest in Technology Improvement in selected areas by providing them with a grant support of up to 50% of the project cost, when the project is selected. Selection will take place on a competitive basis using a tender system. In this system, industries and institutions are invited once a year by the Director of the PMO to formulate TI proposals in specific PV fields. The proposals have to reach the Director of the PMO before a certain deadline. After the deadline, the proposals are evaluated and ranked. This ranking and supporting documentation will be submitted to the World Bank for review. If the World Bank has no objection, the highest ranked proposals will be funded as far as the budget for that specific tender will allow. The TIC Manager will monitor the progress of implementing of the approved proposals. After completion of the grant supported projects the TIC Manager will evaluate the projects and report on the achievements and lessons learned. Further details are given below.

#### ***Eligible Industries and Institutions***

Entities that are eligible for financial support from the Grant-Assisted Technology improvement Projects (Competitive Grant) would be:

- industries presently involved in, or have the capability for, production of PV systems and components
- institutions (e.g. research, development, testing, certification and standardization) if their activities are directly relevant to PV equipment production at lower cost and/or improved quality

It is stressed that this element is open to all industries and institutions legally registered in China, fulfilling the above criteria. This could include both joint ventures between Chinese and foreign companies and fully foreign owned industries and institutions registered in China. Further, no distinction will be made between private, government owned or cooperative industries or institutions.

In order to keep the processing of the proposals manageable (evaluation, ranking and justification), a pre-selection will be undertaken among the eligible industries and institutions<sup>2</sup>.

This pre-selection will be done at the beginning of the program and will be repeated each year well in advance of the opening of the tender process.

### *Pre-Selection and Proposal Solicitation & Evaluation Process*

The PMO will prepare an annual plan for the TIC Component. This annual plan will contain information on the Grant-Assisted Technology Improvement Projects (the draft plan for the first year is given as Appendix 8).

This plan includes:

- GEF budget
- subjects to be supported
- activities to be supported
- pre-selection process (dates for requests for pre-selection and pre-selection)
- tendering period (opening and closing date)
- information meeting with pre-selected industries and institutions (including date)
- evaluation process (including deadline for evaluating and ranking by the TIC Manager, required dates for national and international experts, meeting dates of the NPEC, deadline for submission of proposals and ranking to the WB and deadline for informing the industries and institutions on the outcome)
- deadline for closing the contract between SETC and the industries or institutions

*Pre-Selection.* Based on the annual plan, the TIC Manager will prepare a notification for pre-selection. This notification requires prior review by the World Bank. After obtaining a letter of “No Objection”, the Director of the PMO can issue the notification for pre-selection. This notification will be distributed by direct mailing, publication in for PV relevant technical monthly journals and through the internet. The selection will be prepared by the TIC Manager and will be reviewed by the NPEC. After approval, it will be submitted to the Director of the PMO for submitting it to the World Bank for review. If the World Bank has no objection, the pre-selected industries and

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<sup>2</sup> In order to keep the processing of proposals manageable and at the same time obtain sufficient proposal to select from, the target average number of proposals received per tender is 60. This number is based on an estimated average size of PV projects of 40,000 US\$, 50% cost sharing by the GEF and a success chance of funding of 40%. In order to obtain 60 proposals at least 50 PV industries or institutions should be requested to submit proposals (assuming that 80% of the industry or institutions will submit 1 proposal and 20% will submit 2 proposals).

institutions are the ones that will participate in the coming tender. A detailed schedule for this process is given in Appendix 9. This pre-selection process will be repeated annually.

*Pre-selection Criteria.* The pre-selection criteria is: the 50 PV related institutions with the highest potential contribution to achieving the objective of the TI Component. In the request for pre-selection, the industries and institutions will need to proof that:

- the industry or institution is presently involved in activities related to the production of PV components or systems; and
- the industry or institution is financially sound and that the prospects of sustainability are good.

Or:

- the industry or institution is interested and able to engage in activities related to the production of PV components or systems; and
- the industry or institution is financially sound and that the prospects of sustainability are good.

The TIP Manager will make sure that sufficient information is obtained from or about the industries and institutions to assess the above requirements.

*Information Meeting.* Upon obtaining the “No Objection” from the World Bank, the Director of the PMO will inform the industries and institutions who submitted requests for pre-selection on the outcome of the pre-selection process. The pre-selected industries and institutions will at the same time be invited to participate in the Information Meeting in which the call for proposals under the Grant-assisted Technology Improvement Projects will be issued and explained in detail. The timing of this information meeting will be included in the annual plan. During that meeting the industries and institutions can also collect the documentation for the call for proposals, including the proposal format and the annual plan. The pre-selected industries and institutions that do not participate in the information meeting will obtain the call for proposals and supporting documentation by mail. Direct after the information meeting, training opportunities will be offered for preparation of proposals and formulation of business plans. Participation in these training opportunities is not compulsory. These training opportunities will be offered every year.

*Proposal Solicitation.* After the information meeting the industries and institutions can prepare proposals for support by the GEF funds. The proposals need to be prepared in the standard format designed by the PMO and be accompanied by a business plan. The format for the proposals is given as Appendix 10 while the format for the business plan is given as Appendix 11. The industries and institutions can request assistance for this from the TIC Unit. The National Proposal Solicitation Officer will in particular provide this assistance. This person will also visit as many pre-selected industries and institutions as possible to encourage preparation of proposals, discuss problems and help with formulation of the proposal and supporting documentation (including the business plan). In the first year of the program (FY 2002) an International Proposal Solicitation Expert will assist the National Proposal Solicitation Officer. The TOR of the International Proposal Solicitation Expert is given as Appendix 12.

*Closing of the Call for Proposals.* During the information meeting and in the call for proposals documentation a clear closing date and time for proposals will be indicated. Proposals, for whichever reason, received by the PMO after that date and time would not be considered. This implies also that the PMO needs to develop a solid system for receipt and registering of proposals.

Proponents will receive a confirmation letter of receipt of the proposals as soon as possible after receipt. After closing of the call for proposals, the TIC Unit will start the process of evaluating and ranking of the proposals.

*Evaluation of Proposals.* Before ranking, the TIC Unit will review and evaluate the proposals. The first check will be if the proposals are complete. If not, the TIC Unit may decide to request the missing information. This decision will depend on the number of proposals received. If the proposals are complete, the TIC Unit will check the project cost and revise this when necessary. If for instance the equipment cost is not calculated in the right way, the TIC Unit will calculate the right project cost. This will influence the amount of grant support a project will receive because this will always be a fixed percentage of the project cost (up to 50%). The TIC Unit also needs to check if the percentage of grant support requested is indicated (maximum 50% but this may be lower, increasing therewith the cost effectiveness of GEF support). Industries and institutions will never receive a higher percentage than requested. The TIC Unit must also check if the Business Plan is included. All proposals can be submitted in Chinese. However, for review by international experts and the World Bank, the TIC Unit needs to make from each proposal and the attached business plan a brief summary in English. The PMO will submit the outline for this summary to the World Bank for approval. The information in the translated outline should be of sufficient length and quality in order to enable the World Bank and the international experts to understand the proposed projects. If necessary, international experts or the World Bank can request additional information in English related to each proposal and business plan.

*Ranking of proposals.* The TIC Unit will develop a method for ranking of proposals. It is expected that in average for each call of proposals around 60 proposals on PV will be submitted. To simplify the ranking process it is advisable to group the different proposals in separate categories (by area such as controllers or modules). Preferably, each category should have less than 10 proposals. The proposals should then first be ranked in each category (using the paired choices matrix or another method). After this, the highest ranked proposals in each category can be compared and ranked. This process will be carried out by the TIC Manager with the assistance from an International Proposal Evaluation Expert (TOR of the International Proposal Evaluation Expert is given as Appendix 13) and national experts. The ranking of the PV proposals, together with the justification will be submitted to the NPEC for review and endorsement. NPEC members should receive the ranking and the justification for the ranking from the TIC Manager at least 5 working days in advance of the review meeting. The review meeting can take one or several days. At the end of the meeting the ranking of the PV proposals should be finalized and the highest ranked proposals that will be supported, should have been selected. The Director of the PMO will submit the ranking of the proposals for review to the World Bank.

*Ranking Criteria.* The projects will be ranked using the following ranking criteria.

1. contribution to achieving the objectives of the TIC
2. chances of success of the proposal
3. cost effectiveness

Issues of consideration in evaluation of the contribution to achieving the objective are: a) envisaged cost reduction and/or quality improvement of a component, b) relative importance of that component, c) effect of cost reduction of the project on system cost for the end-user, and d) time

frame in which cost reduction can be achieved (cost reduction on the short term is in general more important than cost reduction on the longer term).

In evaluating the chances of success it is important to consider that the chances of success are in general higher if: a) strategic partners work together, in particular if there is cooperation between design, production and market parties, and b) the parties have experience in TI in PV.

Cost effectiveness looks at the ratio of the contribution to achieving the objective of the TIC and the financial support required from the TIC.

*Grant Agreement.* For each project that will be supported by GEF funds, a grant agreement will be made between SETC and the proponents. In this grant agreement, signed by both the PMO (on behalf of SETC) and the proponent, the amount of support and the activities the proponents will need to carry out for receiving this, will be specified. The original proposal will form an integral part (appendix) to this agreement. If necessary specific requirements for a particular project can be included in the grant agreement. The standard grant agreement between SETC and the proponents is given in Appendix 14.

### *Areas to be Supported*

Based on an extensive PV industry surveys and the industry consultation meeting (held on 27 October 1998 in Beijing) it has been decided that the TI Component will be limited to the development of certain areas. The main reason for this is to obtain maximum impact and avoid fragmentation. The areas selected for PV are:

- Solar home systems (including wind/PV hybrid systems) for rural application from 10 Wp to 500 Wp PV
- Stand alone PV systems up to 1 kWp PV for institutions.
- Small wind generators for Wind/PV hybrids up to 500 W.

Within these areas, in principle, TI on all components can be supported as well as TI on the whole system and TI on the application of these systems.

In the annual plan for the TI Component, these areas can be further narrowed down. For instance in the first year (FY 2002), the TI areas will be limited to (see Appendix 8):

- Solar home systems for rural applications from 10 to 37 Wp.

Within these areas, the annual plan gives a priority list for the different components, system and application.

### *TI Activities Supported*

The following activities in the above areas of the Grant-assisted Technology Improvement Projects will be supported:

- labor for research and development
- production of prototypes<sup>3</sup>
- field testing of prototypes<sup>4</sup>
- testing and certification
- depreciation (or rent) of equipment used for research and development over the period and extend the equipment is used for TI of PV components or systems
- training related to TI of PV components or systems
- purchase of specific software required for TI of PV components or systems
- materials required for TI of PV components or systems
- market studies for new or improved products

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<sup>3</sup> A prototype is defined as the first unit or units resulting from design and development. The purpose of a prototype is to investigate if the design function as it is intended to do. A prototype is not intended for sale or lease.

<sup>4</sup> Field testing of prototypes is done to investigate how the design functions under real life conditions. The purpose is to learn from the field-testing and not to generate electricity for commercial use. Extensive measuring, monitoring and testing must be a part of a field-testing program.

- studies on improved use of PV components or systems (for instance studies related to grid integration of wind turbines)
- consultancy services related to research and development of PV systems and components
- travel cost related to TI of PV systems and components
- identification of potential local and foreign partners for the production of PV components and systems
- studies for the assessment of the feasibility of cooperation with local or foreign partners (joint ventures)

The following activities will NOT be supported:

- basic research on PV components and systems
- investment in commercial production equipment
- equity investment in joint ventures
- purchase of production licenses
- investment in PV system implementation projects (testing of prototypes can be supported)
- activities covered in other components of the China Renewable Energy Development Program or under the UNDP/GEF RE Project or other programs supported by international developing agencies
- TI outside China

Changes to the above list can only be made when approval from the World Bank is obtained. Below, further details on the different activities are given.

*Labor for research and development.* In order to simplify implementation, standard labor cost figures will be used. There are only three cost categories: a) senior researcher, b) researcher, and c) assistant. The standard cost figures for these categories are given in Table 1 below.

Table 1. Standard labor cost figures

Category	Labor cost <sup>5</sup> (Yuan/day)
Senior Researcher	350
Researcher	250
Assistant	150

Because the beneficiaries in general will not have a system in place for monitoring the time spend on certain activities, the industries and institutions will be required to keep records of who, when and how long staff worked on the TI project supported by the GEF grant. These records do not need to be submitted to the TI Unit, but need to be kept for inspection when required.

*Depreciation (or rent) of equipment required for R&D.* Cost of equipment used for TI activities can be supported, but only for the part that can actually be attributed to TI activities. For instance, the cost of equipment with a lifetime of 10 years, purchased for a TI project which will last 2 years, can only for 20% be attributed to the TI project, if the equipment is used afterwards for other work.

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<sup>5</sup> These figures apply for the first year and will increase each year with 10%.

Also, when equipment purchased or rented for the TI Project, but which is for 40% also used for other projects or activities, the cost can only for 60% be attributed to the TI project. The proponent will have to calculate the cost of purchased or rented equipment to the TI project. In evaluating the project, this calculation will be reviewed and if necessary corrected.

All other cost will be supported based on evidence of actual expenditure. This includes travel cost.

The above implies proper record keeping by the supported industries and institutions. The TIC Unit will provide technical assistance for this and include this aspect in information and training meetings.

### ***Project Size***

To avoid that too many proposals are received, a minimum GEF contribution is introduced. The minimum GEF contribution for projects will be specified in the annual plan. For the first year (FY 2002) the minimum GEF contribution will be 2,500 US\$ equivalent.

### ***Budget***

The budget allocation for the Grant-Assisted Technology Improvement Projects is for PV 2.4 million US\$ equivalent. With a minimum cost sharing of 50%, this will lead to a minimum investment in technology improvement of 4.8 million US\$ equivalent for PV. The tentative annual distribution of GEF funds is given in Table 2 below. The actual annual allocation will be given in the annual plan.

Table 2. GEF Allocation (million US\$)

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	Total
PV	0.3	0.75	1.1	0.25	0	2.4

### ***Disbursement***

After the TI Subgrant Agreement (contract) between SETC and the proponent is signed by both parties, the project is operational. The PMO will request the MOF to pay an advance to the proponent of 30 % of the project cost. In principle, the balance (70%) will be paid after satisfactory completion of the project. However, the industry or institution may request the PMO for an additional payment of 30% of the project cost, after these cost have been made and when the proponent can proof that substantial results have been achieved. If the PMO decides, based on the evidence provided, that such payment is justified, the PMO will request the MOF to pay the requested payment. The remaining balance (40%) will be paid after satisfactory completion of the project.

### ***Reporting***

The PMO is responsible for the preparation of a project completion report and intermediate reporting for projects with a duration exceeding one year. However, the PMO can include in the contract with the industries or institutions the requirement that they need to prepare these reports. The PMO will review these reports and make a brief translation for inclusion in the annual report on the TI component. If the industries or institutions do not make these reports, the PMO will need to prepare these reports.

### **Grant-Assisted Small Technology Improvement Projects (Quick Response Facility)**

The Grant-Assisted Small Technology Improvement Projects (Quick Response Facility) has been developed to overcome one of the disadvantages of one annual tender for supporting technology improvement projects. In this system there is a possible big time lag between project concept development and actual implementation. Experience in other countries has shown that often there is a need for quick support of small projects. These projects included urgent consultants services, participating in meetings known insufficiently in advance to request assistance through the Competitive Grant Facility, and urgent studies.

Only projects with an urgent character can be supported by the Grant-Assisted Small Technology Improvement Projects. Further, these projects need to be small. The proponent will need to proof that the proposed project is urgent and that it can not wait for the Competitive Grant Facility.

### ***Eligible Industries and Institutions***

The pre-selected industries and institutions for the Grand-Assisted Technology Improvement Projects (Competitive Grant Facility) are also the eligible parties for the Quick Response Facility.

### ***Selection Procedure***

Pre-selected industries and institutions can apply for financial support from the Quick Response Facility using the same standard application form as used for the Competitive Grant Facility (see Appendix 10). Also these applications need to be accompanied by a business plan. For the business plan in principle the same format as for the Competitive Grant Facility can be used. However, the information provided can be much less detailed (see Appendix 11).

Upon receipt of the proposal, the PMO will evaluate the proposal and inform the proponent on the outcome within 20 working days after receipt. The criteria for evaluating the proposals are the same as for the Competitive Grant Facility. Proposals supported should be: a) urgent, b) small in size, and c) score satisfactory on all three criteria. Further, there should be sufficient funds left from the annual allocation to support the project. If the PMO decides to support a project it will, on behalf of SETC close a TI Subgrant Agreement with the proponent in the same way as done for the Competitive Grant Facility. After signing of the TI Subgrant Agreement by both parties, the project is operational.

The PMO will make sure that the Quick Response Facility is used equally over the whole project year so that it is not depleted in the first few months of the new budget year. Rejection of submitted proposals to achieve this objective is a valid reason.

### ***Areas and Activities Supported***

The areas and activities supported are in principle the same as those for the Competitive Grant Facility. However, some activities will require more resources than the Quick Response Facility can provide, and will, therefore, not be supported.

In addition, the Quick Response Facility can support activities related to the application of soft loans (see 4.3) if the grant support needed does not exceed the limit set for the Quick Response Facility (see 4.2.4 below).

***Project Size***

The minimum GEF contribution for projects under the Quick Response Facility will be specified in the annual plan. For the first year (FY 2002) the minimum GEF contribution will be 2,500 US\$ equivalent. The Maximum GEF contribution for projects under the Quick Response Facility is 10,000 US\$ equivalent.

### ***Budget***

The budget allocation for the Grant-Assisted Small Technology Improvement Projects is for PV 0.3 million US\$ equivalent. With a minimum cost sharing of 50%, this will lead to a minimum investment in technology improvement of 0.6 million US\$ equivalent for PV. The tentative annual distribution of the GEF grant given in Table 3 below. The actual annual allocation will be given in the annual plan.

Table 3. GEF Allocation for Quick Response Facility ('000 US\$)

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	Total
PV	75	100	50	50	25	300

### ***Disbursement***

In order to facilitate quick response and payment of an advance, the PMO will set up a separate interest earning account for payment of grants under the Quick Response Facility. The amount on this account will have a maximum of 50,000 US\$ equivalent, equal to the first transfer from the MOF to this account.

After effectiveness, the PMO will request the MOF to transfer 50,000 US\$ equivalent to this account. When the total amount on this account drops below 25,000 US\$ equivalent, the PMO will request the MOF to transfer another 25,000 US\$ equivalent to this account or the remaining allocation for that year if this is less than 25,000 US\$.

The PMO can directly, without prior review by the World Bank, disburse money from this account to industries and institutions for projects approved under the Quick Response Facility. After SETC and the proponent sign the TI Subgrant Agreement the project is operational. The PMO will pay the proponent an advance of 50% of the GEF contribution. Upon completion of the project the balance will be paid.

The PMO will inform the MOF and the World Bank annually on the interest received on this account. The interest earned will be added to the funds used to support projects under the Quick Response Facility.

### ***Reporting and Review***

The use of the Quick Response Facility is subject to post review. The PMO needs to provide the World Bank information on the approved and rejected projects. This information will be reviewed during the semi-annual review missions.

The PMO is responsible for the preparation of a project completion report for each supported project. However, the PMO can include in the grant agreement with the industries or institutions the

requirement that they need to prepare these reports. The PMO will review these reports and make a brief translation for inclusion in the annual report on the TI component. If the industries or institutions do not make these reports, the PMO will need to prepare these reports.

## **Investment Projects Assisted by Loans**

The initial intended grant contribution by SETC has been replaced by a Soft Loan Facility equivalent to 15 million US\$ from the commercial banks of China. The World Bank will monitor closely if this loan is actually available to the PV industries. The Soft Loan Facility is intended for loans for technology innovation. This facility is already in use for other technology areas. The application of soft loans can start from January 2002.

The Soft Loans will be provided by commercial banks in China on the same terms and conditions as those applying to Technical Retrofitting Loans of SETC. At present these are:

- Industry and Commercial Bank of China
- Construction Bank of China
- Agricultural Bank of China

### ***Eligible Industries and Institutions***

All PV related industries and institutions could apply for this soft loan. Within the TI Component of the China Renewable Energy Development Project, however, assistance will be provided to pre-selected industries and institutions that would like to make use of this soft loan. The pre-selected industries and institutions are the same as for the Grant-assisted Technology Improvement Projects.

### ***Procedures***

The Soft Loan Facility of SETC will assist industries in technology upgrading by covering part of the interest paid by the industries for loans obtained from commercial banks in China. The first step for the industries is to obtain, in principle, a loan from a commercial bank for a technology upgrading investment on the premises that the interest will be subsidized by SETC. The commercial bank will make an independent assessment of the investment project. Only if this project were sound and financial viable the commercial bank would be willing to finance the project. Also, the industry will be required to provide a minimum of 20% of equity investment. With this agreement in principle, the industry can go to one of the local offices of SETC and apply for financial support. SETC will first check if a commercial bank would in principle be willing to provide the loan (on the premises that SETC will provide a subsidy on the interest rate). If this is the case, SETC will check if the project fulfills the SETC criteria for providing financial support. If this is also the case, SETC will make an agreement with the industry to repay half of the interest paid by the industry to the commercial bank, upon successful completion of the project. With that agreement, the industry can finalize the loan application and start the project.

Pre-selected industries and institutions are encouraged to contact the TIC Unit before applying for a loan under the Soft Loan Facility and to send a copy of their application to the TIC Unit of the PMO after this application is committed by local bank and endorsed by local office of SETC.

***Assistance Provided***

The TIC Unit will provide the following services to pre-selected industries and institutions that are interested to make use of the soft loan:

- provision of information on the availability, procedures and requirements of the soft loan
- provision of assistance in the application for financial support (on a cost sharing basis) for the preparation of feasibility and related studies if these are needed for the application of the soft loan, using the quick response facility
- provision of assistance in formulating the application for the soft loan (on a cost sharing basis), using the quick response facility
- provision of assistance in submitting the application for the soft loan
- monitoring the process of evaluating the soft loan application by SETC and local commercial banks

***Reporting***

The TIC Unit will keep record of assistance provided to industry and institutions to obtain loans from the Soft Loan Facility for PV industries. Also records should be kept of actual loans provided by the Soft Loan Facility. These records must be submitted to the World Bank according to the mutually agreed reporting schedule (see section 8.2).

***Review***

If loans from the Soft Loan Facility are not forthcoming as planned, the facility system and process will be reviewed and measures will be taken to rectify the situation.

**Project Management**

The GEF will contribute 400,000 US\$ for the management of the TI Component. Additional funds need to be provided by SETC. The funds will be used for national staff, national and international experts, travel cost and office operational cost.

## **Budget**

The budget for project management is given in Table 4 below.

Table 4. Budget for project management

Item	Cost (US\$ equivalent)
1. TIC Manager (60 months, 2000 \$eq/month)	120,000(SETC 108,000; GEF 12,000)
2. Management Assistant (60 months, 800 \$eq/month)	48,000 ;
3. National Project Solicitation Officer (60 months, 1100 \$eq/month)	66,000
4. National consultants for project evaluation (30 months, 1200 \$eq/month)	36,000
5. International Proposal Solicitation Expert (4 months, 66,000 US\$)(2 trips * 4000\$ + 4*30*150\$ DSA + 4 months*10,000\$ fee)	66,000
6. International RE Proposal Evaluation Expert (5 months, 105,000 US\$) (5 trips * 4000\$ + 5*30*150\$ DSA + 5 months *12,500 \$ fee)	105,000
7. National travel cost	67,000
8. Office operation cost (rent, telephone, secretaries, etc.)	(SETC) 110,000
<b>Total</b>	<b>618,000</b>

*Note: SETC will fund the cost items as indicated.*

Please note that the salary cost of the national experts is the total cost, and the monthly fee is an average fee. With an annual increase of 5%, the monthly fee for the TIC Manager for the first year contract will be 1810 US\$ while it will be 2020 US\$ equivalent in the fifth year.

## **Disbursement**

One of the eight cost items will be covered for 100% by SETC. One item (TIC manager cost) will be shared by SETC (90%) and GEF (10%). The rest cost items will be covered for 100% from the GEF grant on actual cost basis. When payments need to be made from the GEF grant, the PMO will request the MOF to pay directly to the recipients.

## **Recruitment**

All recruitment will follow the World Bank rules and regulations.

For all staff, national and international, long and short term, the PMO will:

- prepare a detailed TOR and submit this to the World Bank for issuing of a No Objection Letter
- identify at least three candidates for each post and submit this, with an indication of the preferred candidate and an indication of the estimated cost to the World Bank for issuing of a No Objection Letter
- select the preferred candidate
- close a contract with the selected candidate

- provide training to selected national candidates, when needed.

The long-term national staff (TIC Manager, Management Assistant and Project Solicitation Officer) will be contracted initially for one year, with expectation of extension when performance is satisfactory. At least 2 months before the one-year contract expires, the PMO will prepare a performance assessment report including recommendations for extension or selection of an alternative candidate. This report should be submitted to the World Bank for review. The extension of long term national staff (for the remaining part of the project) also requires a No Objection Letter from the World Bank. The long-term staff should be in place when the China Renewable Energy Development Project becomes effective.

National consultants for project evaluation will only be contracted for periods of up to 2 months at a time.

All national consultants and staff can not have a direct link with a particular PV component or system manufacturer, in order to safeguard confidentiality of information provided to the PMO and to avoid a conflict of interest.

The International Proposal Solicitation Expert will be contracted for a period of 4 months. The International RE Proposal Evaluation Expert will initially be contracted for a period of 1 month in the first year. If the services provided to the PMO are satisfactory, preference may be given to this candidate in the following years.

### *Activities*

The TIC Unit will undertake the necessary activities and actions to implement the TI Component. This includes the implementation of the Competitive Grant Facility and the Quick Response Facility. Activities to support the use of the Soft Loan Facility and activities related to Awareness Building and Program Support. In addition to this, the TIC Unit will monitor the progress, evaluate the progress, report on the progress, and preparation of the annual plan.

Standard reporting formats are outlined in Appendix 15 and 16 (see section 8.2). This outline can also be used as a guideline for monitoring. An outline of the annual plan is given in Appendix 8.

### **Awareness Building and Program Support**

The Awareness Building and Program Support element is established to allow the TIC Unit to carry out activities to support the implementation of the program.

### *Activities to be Supported*

Activities supported from the Awareness Building and Program Support allocation, should in general be beneficial to a large number or all industries and companies. The envisaged activities include:

- organization and arrangement of information and training workshops;
- workshops for industries on Technology Improvement in general and such activities in other countries;
- workshops for industries on Technology Transfer mechanisms;
- workshops on quality control and certification;
- development of a database on PV component and system prices (selling and production); and
- surveys to determine on which components to focus in the next invitation of proposals.

In the annual plan, the PMO will indicate the envisaged activities in that year. However, to maintain flexibility, a reasonable amount of money needs to be un-allocated. This un-allocated money can be used for urgent, needed and unforeseen activities. For this purpose, up to 50% of the annual budget for Awareness Building and Program Support can be un-allocated.

### ***Budget***

The allocation for activities under the Awareness Building and Program Support element is 400,000 US\$. The tentative annual allocation is given in Table 5. The actual allocation for this element will be included in the annual plan.

Table 5. GEF Allocation for Awareness Building and Program Support ('000 US\$)

FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	Total
100	100	100	50	50	400

### ***Disbursement***

In order to facilitate efficient use of the allocation for Awareness Building and Program Support a separate account for this element will be set-up by the PMO. The amount on this account will have a maximum of 50,000 US\$ equivalent, equal to the first transfer from the MOF to this account.

After effectiveness, the PMO will request the MOF to transfer 50,000 US\$ equivalent to this account. When the total amount on this account drops below 25,000 US\$ equivalent, the PMO will request the MOF to transfer another 25,000 US\$ equivalent to this account or the remaining balance for that year, if the balance is less than 25,000 US\$ equivalent.

The PMO can use this account for payment for activities on Awareness Building and Program Support.

The PMO will inform the MOF and the World Bank annually on the interest received on this account. The interest earned will be added to the funds used for awareness building and program support.

### ***Authorization***

For all activities supported under this element, the PMO needs to prepare a TOR and a justification how these activities benefit the program.

Expenditures from the Awareness Building and Program Support allocation, exceeding 20,000 US\$ equivalent, require prior review from the World Bank. In the request of the PMO to the World Bank for issuing a letter of "No Objection", the PMO needs to provide a detailed TOR of the proposed activities and a justification how this activity will benefit the TI Component. After receipt of the "No Objection" the activity can be implemented.

If some of the activities for the coming year are already known, these can be included in the annual plan. Activities exceeding 20,000 US\$ equivalent, for which the TOR and the justification are also included in the annual plan, do not need prior review when the annual plan has been approved.

Activities below 20,000 US\$ equivalent do not need prior review by the World Bank. However, the PMO still needs to prepare a TOR and a justification. Activities below 20,000 US\$ will be subject to post review.

The World Bank can decide to lower or increase the threshold for prior review, based on the actual performance of this element and prior and post reviews.

## Performance Indicators and End of Project Targets

The performance indicators for the TI Component are given in Table 6. In the first year of the program these indicators will be reviewed and double-checked.

The TIC Manager will do monitoring of the performance indicators. Reporting and information details that needs to be collected are given in Appendix 16.

Table 6. Performance Indicators for the TI Component

Indicator	Comment	base year mid 1998	mid-term begin 2004	End- project End 2006
<b>PV</b>				
Chinese module manufacturers meeting Specifications	October 1998 Version	0	8	10
Chinese controller manufacturers meeting specifications	October 1998 version	0	4	6
Chinese battery manufacturers meeting specifications	October 1998 version	0	5	5
Chinese DC light manufacturers meeting specifications	October 1998 version	0	5	10
Wholesale price 20 Wp module	100 units minimum	900 Y	800 Y	700 Y
Wholesale price controller	100 units	80 Y	70 Y	65 Y

(12V/5-7 A)	minimum			
Wholesale price battery (12V/30 Ah)	100 units minimum	300 Y	250 Y	200 Y
Wholesale price DC lights (12V/9W)	100 units minimum	35 Y	35 Y	30 Y
Wholesale price 50 Wp module	100 units minimum	2250 Y	2000 Y	1800 Y
Wholesale price controller (24 V/10 A)	100 units minimum	300 Y	280 Y	210 Y
Wholesale price battery (24V/60 Ah)	100 units minimum	1500 Y	1250 Y	1050 Y
<b>Institutional Strengthening</b>				
number of proposals received which are of good quality	proposal/year	0	50	200
number of participating industries and institutions	cumulative	-	100	200
number of courses/training given	cumulative	-	6	20
participants in courses/training	cumulative	-	180	740

## World Bank Supervision and Mid-Term Review

**The World Bank Supervision.** The World Bank will have in principle two supervision missions per year. With respect to the Technology Improvement Component, the supervision missions will in particular look at:

- number and quality of TI projects received and approved under the Competitive Grant Facility
- number of industries and institutions visited by the National Proposal Solicitation Officer
- post review of projects approved under the Quick Response Facility
- performance of the Soft Loan Facility
- activities undertaken in general support of the program
- the use of program management resources
- overall effectiveness of the TI Component in achieving the objectives
- problems encountered in the implementation of the TI Component

The PMO will be informed on the World Bank Supervision mission sufficiently in advance to prepare the above and other information.

**Mid-term Review.** A mid-term review will be conducted with the participation of independent specialists to assess the project's progress and recommend any corrective actions required facilitating implementation of the project. With respect to the Technology Improvement Component, an assessment will be made whether or not the Component is likely to achieve its objective of reducing cost and improving the quality of PV components and systems. The mid-term review will recommend measures that may be taken to increase the likeliness of success or further enhancement of implementation. It is expected that the review would be completed no later than 30 months after the date of effectiveness. The precise timing and scope of the mid-term review will be agreed between the PMO and the World Bank no later than two years after the date of effectiveness.

## Performance Monitoring

The PMO will monitor companies and institutions participating in grant assisted technology improvement projects to ensure that grant funds are being used for the intended purpose.

The PMO will verify that the companies and institutions are undertaking the activities proposed in the proposal for grant application (and which is part of the grant agreement between PMO/SETC and the industries and institutions), that the industries and institutions provide their inputs (labor and other) and that the industries and institutions can finish the work in the agreed period.

The monitoring will take place on a random sampling basis or when the PMO has reasons to believe that the industries or institutions can not meet their contractual obligations. The National Proposal Solicitation Officer can combine the monitoring visits with the frequent visits.

In case industries or institutions can not meet their obligations specified in the grant agreement, the PMO will act in one of the following ways: 1) modify the grant agreement between PMO/SETC and the industry or institution, including more realistic targets, 2) set clear deadlines for the industry or institution for fulfilling their obligations. If the industry or institution does not meet this deadline, the project should be canceled and no further payments should be made.

## **Reporting**

### **Industries and Institutions Receiving Grants for TI**

For projects with a duration of one year or less, the industries and institutions need only to provide an “End of Project Report”, satisfactory to the PMO. This report should be submitted to the PMO within 2 months after completion of the project. Only after acceptance of the “End of Project Report” by the PMO, the PMO will request the MOF to pay the balance of the grant to the industry or institute. This procedure will be specified in the grant agreement.

For projects with duration of more than one year, one or more intermediate reports will need to be submitted. Details for this will be included in the grant agreement.

When industries or institutions, who received a grant under the Competitive Grant Facility, would like to receive a second advance of 30%, they have to prepare a report to show that the activities have been undertaken and that certain milestones have been reached. This report needs to accompany the application for payment of the second advance. The PMO will judge if the cost have actually been made and whether or not the achievements are sufficient to justify the second payment. The main criteria for the latter is that it must be likely that the industry or institute will achieve the results promised in the project proposal submitted for application of the grant.

### **PMO**

For monitoring of implementation of the TI Component, the PMO is required to prepare the following reports over the duration of the project:

1. quarterly monitoring reports (10)
2. bi-annual monitoring reports (10)
3. annual plans for Technology Improvement Component (6, one for each fiscal year)
4. mid-term review report (1)
5. component completion report (1)

The due dates of the quarterly and bi-annual monitoring reports will be agreed after effectiveness. These will be the same for all three components (Wind, PV and TI). Annually there will be two quarterly reports, two bi-annual reports and one annual plan. During the project life, one mid-term review report and one component completion report have to be prepared. Below details on each report are given.

### ***Quarterly TI Component Monitoring Report***

The quarterly TI Component monitoring reports will be summaries of the implementation progress. These reports will be prepared by the PMO for the PMO (monitoring of progress), for SETC and for the World Bank. The quarterly reports will be only in the form of data tables.

The following information will be included:

- Monitoring Data Tables for Competitive Grant Facility (Appendix 15, Table A15.1 and Table A15.2)
- Monitoring Data Tables for Quick Response Facility (Appendix 15, Table A15.3, Table A15.4 and Table A15.5)
- Monitoring Data Tables for Soft Loan Facility (Appendix 15, Table A15.6 and Table A15.7)
- Monitoring Data Tables for the Program Management Element (Appendix 15, Table A15.8 and Table A15.9)
- Monitoring Data Tables for the Awareness Building and Program Support Element (Appendix 15, Table A15.10, Table A15.11, Table A15.12 and Table A15.13)

### ***Bi-Annual TI Component Monitoring Reports***

The Bi-Annual TI Component Monitoring Reports are more elaborated than the quarterly reports. In addition to the data tables required for the quarterly reports the bi-annual reports contain the following information:

- Performance Indications Monitoring Data (Appendix 16, A16.1)
- a consolidated financial report on the TI Component (Appendix 16, A16.2), indicating:
  - status of the Special Accounts under the TI Component
  - disbursement from the Special Accounts under the TI Component in relation to the allocation
  - forecast of future disbursements from the Special Accounts under the TI Component
- summary of process and projects approved under the Competitive Grant Facility (Text)
- summary of process and projects approved under the Quick Response Facility (Text)
- summary of process and pending applications under the Soft Loan Facility (Text)
- summary of program management activities (Text)
- summary of activities undertaken under the awareness building and program support element (Text)
- identified problems (Text)
- recommendations to solve the identified problems and to improve implementation performance (Text)
- other relevant information (Text and/or Tables)

### ***Annual Plan for the Technology Improvement Component***

The PMO will prepare and submit every year an annual plan for the TI Component. This annual plan will in principle cover the period 1 July to 30 June (which is the same as the World Bank

financial year) and has to be submitted to the World Bank on or before 30 April each year (except the first year). In the first year the annual plan needs to be submitted to the World Bank within 2 months after effectiveness or another date agreed upon by the PMO, SETC and the World Bank. A draft annual plan (for the first year of implementation covering the period 1 September 2001 to 30 June 2002) is given in Appendix 8 of this PIP-TI.

#### ***Midterm Review Report***

The precise timing and scope of the midterm review will be agreed between the PMO and the World Bank no later than two years after the date of effectiveness. The PMO will prepare a Midterm Review Report for the Technology Improvement Component, acceptable to the World Bank and submit this report to the World Bank at least two months before the agreed starting date of the mid term review. Before preparing the Component Completion Report the PMO can submit a format and outline of this report to the World Bank for approval.

#### ***Component Completion Report***

The PMO will prepare a Component Completion Report for the Technology Improvement Component, acceptable to the World Bank, six months before the closing date of the project. Before preparing the Component Completion Report the PMO can submit a format and outline of this report to the World Bank for approval.

## Component Budget

In Table 7, the GEF allocation by cost item and by year is given in million US\$. In Table 8 and 9, the same, in million US\$ equivalent, is given for SETC contribution and the Industry and Institutions contribution respectively.

Table 7. GEF Allocation (million US\$)

Cost Item	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	Total
Competitive Grant PV	0.3	0.7	1.1	0.3	0	2.4
Quick Response PV	0.1	0.1	0.05	0.05	0	0.3
Loan	0	0	0	0	0	0
Program Management	0.2	0.05	0.05	0.05	0.05	0.4
Program Support	0.1	0.1	0.1	0.05	0.05	0.4
Total	0.7	0.95	1.3	0.45	0.1	3.5
Cumulative	0.7	1.65	2.95	3.4	3.5	3.5

Table 8. SETC Allocation (million US\$ equivalent)

Cost Item	FY2002	FY2003	FY2004	FY2005	FY2006	Total
Competitive Grant PV	0	0	0	0	0	0
Quick Response PV	0	0	0	0	0	0
Loan*	0	1.5	3	4.5	6	15
Program Management	0.043	0.043	0.044	0.044	0.044	0.218
Program Support	0	0	0	0	0	0
Total	0.043	1.543	3.044	4.544	6.044	15.218
Cumulative	0.043	1.586	4.63	9.174	15.218	15.218

\* The loans are not provided by SETC but facilitated by SETC.

Table 9. Industries and Institutions Allocation (million US\$ equivalent)

Cost Item	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	Total
Competitive Grant PV	0.3	0.75	1.1	0.25	0	2.4
Quick Response PV	0.1	0.1	0.05	0.05	0	0.3
Loan*	0	0.3	0.6	0.9	1.2	3
Program Management	0	0	0	0	0	0
Program Support	0.1	0.1	0.1	0.05	0.05	0.4
Total	0.5	1.25	1.85	1.25	1.25	6.1
Cumulative	0.5	1.75	3.6	4.85	6.1	6.1

\* 20% equity investment

## Procurement

### Investment Part

For procurement a distinction need to be made between the investment part and the institutional strengthening part. The procurement of goods and services for the investment part is done by the industries or institutions and are not subject to World Bank rules and regulations. The required goods and services are proprietary to the industries and institutions obtaining financial support. Efficient procurement is ensured because industries and institutions have to provide at least 50% of the cost and it is in their best commercial interest to obtain the lowest prices for the goods and services they require. For goods and services to be procured from outside the industries or institutions, the industries or institutions will solicit various quotations to obtain reasonable terms (price, quality, etc.). The industries or institutions may procure goods from outside directly from their pre-qualified suppliers on terms and conditions mutually agreeable to both parties, without requiring additional approval from the PMO or the World Bank.

### **Institutional Strengthening Part**

Financed with GEF funds, this component will involve a range of small contracts over a five-year period. The procurement packages include in particular recruitment of national and international consultants. Procurement will be done by the PMO in accordance with the current World Bank Guidelines for the Use of Consultants. All contracts for support of management of the TI Component will require prior review and approval by the World Bank. For procurement under the Awareness Building and Program Support element, prior review is required for expenditure exceeding 20,000 US\$ equivalent. For expenditure below this amount, post review will be sufficient.

## Appendix 1. Duties of the Director of the PMO, related to the TI Component

Formal communication to the World Bank, SETC and the target beneficiaries will be the responsibility of the Director of the PMO. This includes the following:

- request the MOF for payments from the Special Accounts
- issue project accounts
- issue project financial reports
- issue periodic progress and other reports
- submit requests to the World Bank for clarification or for issuing “No Objection” letters when required, including
  - list of pre-qualified industries and institutions
  - annual plans
  - project ranking and projects selected for grant support under the competitive system
  - quarterly progress reports
  - bi-annual reports
  - mid-term review report
  - project completion report
  - requests for projects under the awareness building and program support scheme exceeding 20,000 US\$
  - TOR's and selected staff, experts and consultants
- issue the formal communication with the target beneficiaries such as:
  - invitation for submitting requests for pre-qualification
  - decision on pre-qualification
  - invitations for submission of proposals
  - invitations for workshops and training
  - decision on requests for grant funding
  - grant agreements with industries and institutions
- other formal issuing and communication

## Appendix 2. Duties of the TIC Manager

### Terms of Reference TIC Manager

#### Background

(to be added )

#### Scope of Work

The TIC Manager is responsible for the overall management of the Technology Improvement Component. The TIC Manager will also prepare the formal documents and communications for the Director of the PMO. The duties of the TIC Manager include:

- implementation of the investment part
- implementation of the institutional strengthening part
- monitoring and evaluation of the progress of the TI Component
- preparation of the annual plans, including proposed changes needed based on the evaluation of the progress of the TI Component
- preparation of required documentation for the Director of the PMO
- management of the TIC Unit, including the international experts

To carry out these duties the TIC Manager will be supported by a National Management Assistant and national and international consultants.

#### Deliverables

The TIC Manager will produce the following deliverables:

1. Annual plans for the TI Component (6)
2. Quarterly Reports on the TI Component (10)
3. Bi-annual reports on the TI Component (10)
4. Mid-term review report (1)
5. Project completion report, within 6 months after completion of the project (1)
6. List of pre-selected industries and institutions (5)
7. Evaluation and ranking of proposals received under the competitive grant system (4)
8. Grant Agreements between industries and institutions and the PMO for projects supported under the competitive grant system ( estimated at 120)
9. Grant Agreements between industries and institutions and the PMO for projects supported under the quick response scheme (between 30 and 120)
10. Visits to industries and institutions by the National Proposal Solicitation Officer (over 200)
11. Competitive Grant information meetings (4)
12. Training workshops on proposal preparation (8)
13. Training workshops on business plan preparation (8)
14. Other workshops and training courses (10)
15. Studies (10)
16. Other deliverables required for the implementation of the Technology Improvement Component

#### Schedule

The TIC Manager will be required as soon as possible, but no later than 2 months after effectiveness of the program. The TIC Manager will be contracted initially for a period of one year. After satisfactory performance, this contract will be extended until the end of the project. There is a possibility of extension after this, if the TI Component will be continued after the WB/GEF project has been finalized.

### **Qualifications**

The TIC Manager should in the first place be a manager. In depth technical knowledge on PV is not required. General knowledge of, and affiliation with this field would, however, be an advantage. The qualifications of the TIC Manager are:

- proven managerial skills
- experience in managing complex programs
- good communications skills
- a background in engineering
- ability to give guidance to a group of people
- age of above 40 years
- at least 15 years working experience of which at least 5 years in a management position

The TIC Manager can not have any linkage to a PV component or system manufacturing industry or institution. The TIC Manager will sign an agreement of confidentiality with the PMO. Information obtained under the program can only be discussed with the TIC Staff, the Director of the PMO and the international and national experts.

## Appendix 3. Duties of the National Project Solicitation Officer

### **Terms of Reference National Proposal Solicitation Officer**

#### **Background**

The tasks of proposal solicitation and evaluation are intentionally separated. This is to guarantee an objective evaluation of all proposals received. The main task of the National Proposal Solicitation Officer, who will be part of the TIC Unit, is to make sure that sufficient proposals of acceptable quality are received.

#### **Scope of Work**

The National Proposal Solicitation Officer will solicit proposals of sufficient quality for technology development in PV from industries and institutions in China. The National Proposal Solicitation Officer will be assisted by an International Proposal Solicitation Officer during periods in the first two years of the program. The National Proposal Solicitation Officer will in particular:

- Visit as many pre-qualified PV Industries and Institutions as practically possible. During these visits the National Proposal Solicitation Officer will:
  - inform the industries and institutions on the TI Component
  - explain the purpose and operation of the program
  - explain the kind and quality of proposals the TI Component would like to receive
  - explain the purpose of the preparation of business plans
  - provide assistance in the preparation of the proposals and business plans
  - inform the industries and institutions on other services they can obtain from the TI Component
  - listen to the problems the industries and institutions encounter related to TI in general and to participation in the TI Component specifically
- Assess the assistance the industries and institutions need to formulate high quality proposals and if the TI Component in its present design provides this assistance
- Propose modifications to the TI Component in order to provide the assistance needed by the industries and institutions (training, information, workshops, direct assistance, etc.)
- Propose ways to improve the proposal solicitation process
- Review the quality of the proposals received and propose ways to improve the quality
- Develop a standard format for the reports of the visits to industries and institutions

In carrying out the above activities, the National Proposal Solicitation Officer will take advice from the International Proposal Solicitation Expert and others.

## **Deliverables**

The National Proposal Solicitation Officer will produce the following deliverables:

1. At least visit in total 200 industries and institutions
2. Brief reports of all these visits in English and (if necessary) in Chinese
3. At least 300 proposals for Technology Improvement under the Competitive Grant system.
4. At least 240 proposals for Technology Improvement under the Competitive Grant system of sufficient quality
5. A comprehensive report on the proposal solicitation process to be included in the quarterly and annual reports and in the project completion report
6. 8 workshops on project preparation
7. 8 workshops on the formulation of business plans
8. Reports (in English and Chinese) of meetings in which the National Proposal Solicitation Officer participated and which are not part of the TI Component

## **Schedule**

The National Proposal Solicitation Expert will be required as soon as possible, but no later than two months after the date of effectiveness of the program. The National Proposal Solicitation Officer will be contracted initially for a period of one year. After satisfactory performance, this contract will be extended up to the end of the project. There is a possibility of extension after this, if the TI Component will be continued after the WB/GEF project has been finalized.

## **Qualifications**

The National Proposal Solicitation Expert will have the following qualifications:

- working experience in the field of renewable energy technologies
- particular experience in the field of PV
- experience in business development
- a master degree in engineering or business administration
- ability to understand the positions of industries and institutions with respect to technology improvement
- ability to understand the difficulties companies and industries may have in applying for financial support for technology improvement
- good communication skills
- prepared to travel frequently within China
- speak and write English
- ability to write brief reports in English
- the National Proposal Solicitation Officer will need to be independent and can not have any affiliation with industries or institutions manufacturing PV components or systems
- The National Proposal Solicitation Officer will need to sign an agreement of confidentiality, all information obtained while working for the TI Component will have to be treated as highly confidential and can not be discussed with anyone outside the TIC Manager and the International Proposal Solicitation Expert.

## Appendix 4. Duties of the NPEC

### Terms of Reference National Proposal Evaluation Committee

#### Background

(to be added)

#### Scope of Work

The NPEC is responsible for evaluating the ranking prepared by the TIC Manager of the proposals received under the Grand Assisted Technology improvement Projects. The TIC Manager, with assistance from national and international experts, will prepare a ranking of projects received under the Grant Assisted Technology Improvement Projects (Competitive Grants) and a justification of this ranking (see Appendix 2). This ranking and the justification will be submitted to the NPEC for review and approval. The specific tasks of the NPEC are:

- review the projects and the ranking of these projects based on the justification given by the TIC Manager.
- if necessary, make modifications to the ranking made by the TIC Manager
- provide the final ranking and select the projects which will receive the grant funding requested (highest ranked proposals)
- submit the projects, ranking and justification to the Director of the PMO for approval and communication to SETC and the World Bank

The NPEC will also play a role in the pre-selection process of industries and institutions participating in the “Competitive Grant” system (see 4.1.2). Again, the TIC Manager will prepare a list with proposed pre-selected industries and institutions. The NPEC will:

- review this list and the list with rejected industries and institutions
- if necessary, make modifications to the pre-selected industries and institutions list prepared by the TIC Manager
- prepare the final list with pre-selected industries and institutions
- submit this list to the Director of the PMO for approval and submission to the SETC and the World Bank.

#### Deliverables

The NPEC will provide the following deliverables:

1. Final list of pre-selected industries and institutions (annually)
2. Final ranking of PV projects submitted under the competitive grant system and an recommendation of projects to be supported by grant funding (highest ranked projects, annually)

#### Schedule

The NPEC needs to be in place and operational as soon as possible after effectiveness. There will be two meetings of the NPEC each year. One meeting will be on pre-selection on industries and institutions, the other meeting will be on evaluation of the ranking of proposals prepared by the TIC Manager.

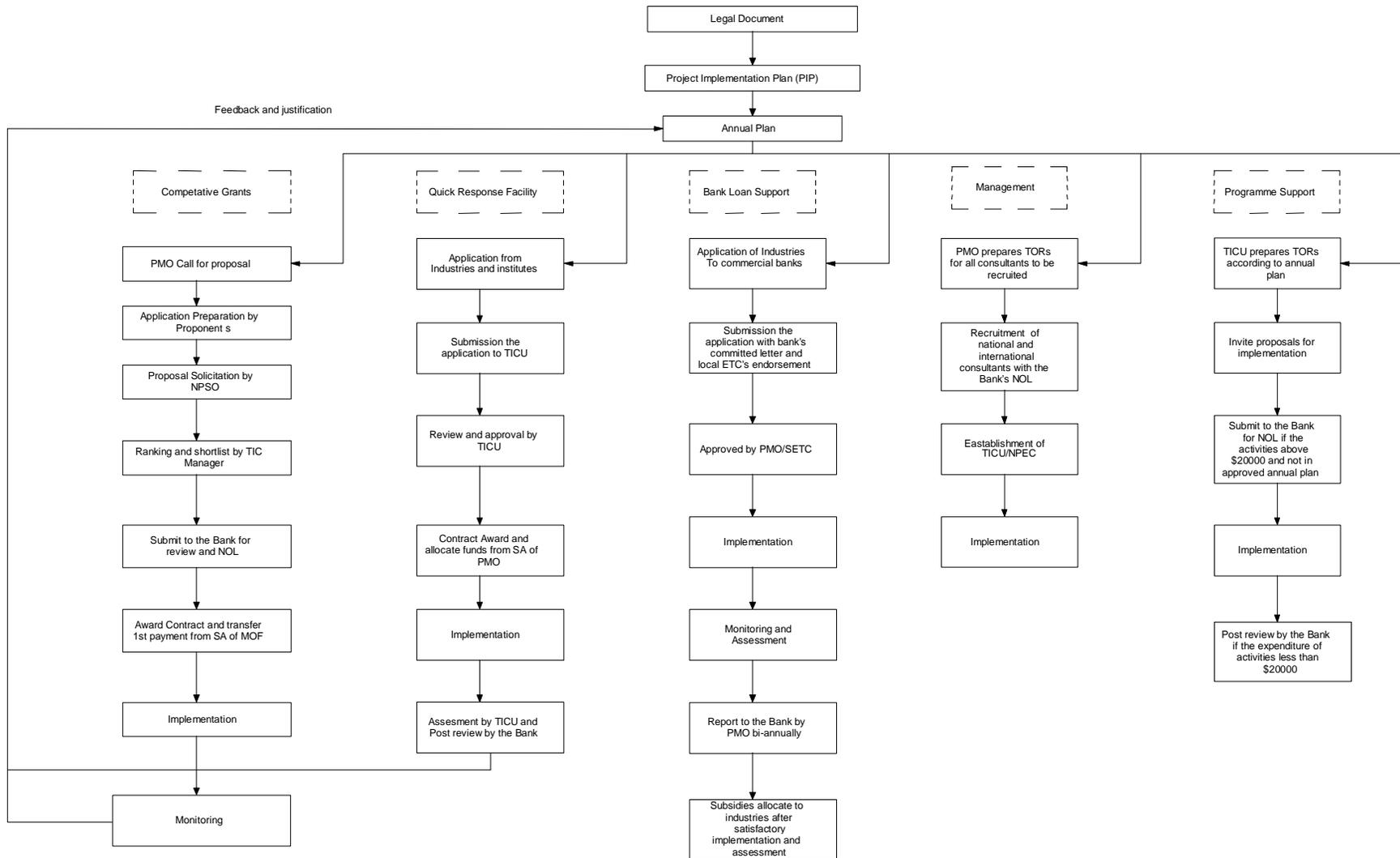
**Qualifications**

The members of the NPEC will be representatives from the industry, R&D institutions and government agencies.

Members of the NPEC can not have any direct linkage to a particular PV component or system manufacturing industry or institution. All members will sign an agreement of confidentiality with the PMO. Information obtained under the program can only be discussed with the committee members.

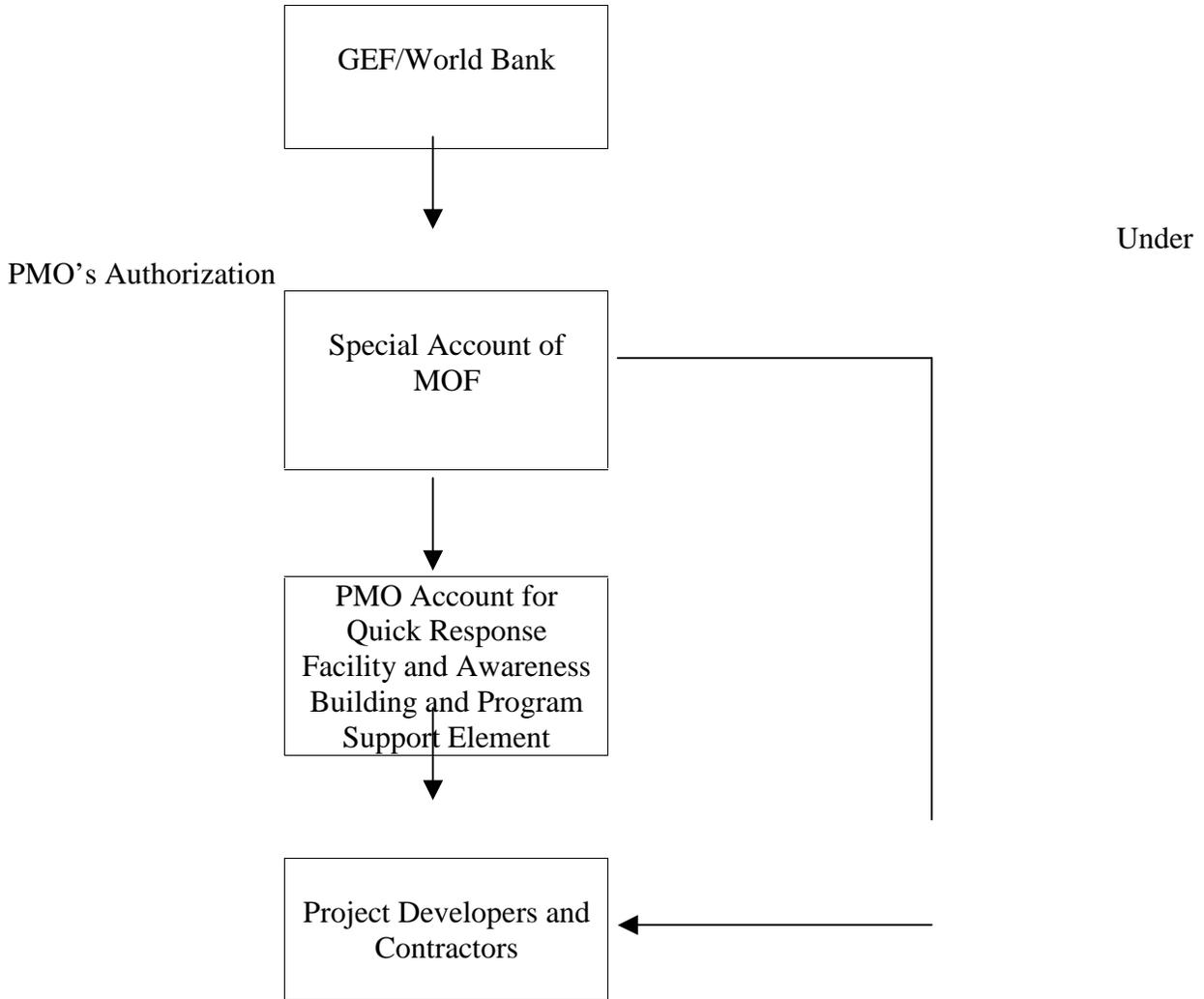


## Appendix 6. Implementation Procedures





# Appendix 7. Grant Disbursement Flow



## Appendix 8. Draft First Year Plan (FY 2002)

### Annual Plan for the Technology Improvement Component China Renewable Energy Development Project FY 2002

#### 1. Review of previous year (FY 2001)

FY 2002 is the first year of project implementation. Therefore, there has not been a previous year. The annual plan for FY 2003 will contain a review of FY 2002, including:

- Resources used
- Grant assisted projects contracted
- Grant assisted projects completed
- Soft loans extended to PV industries by commercial banks
- Institutional strengthening activities carried out
- Staffing
- Lessons learned

#### 2. Budget for FY 2002

FY 2002 covers the period of 1 July 2001 to 30 June 2002. This annual plan is based on the assumption that this project is effective from 1 September 2001. This annual plan covers, therefore the period from 1 September 2001 to 30 June 2002.

The budget for FY 2002 in US\$ equivalent, is given in Table A.1. It contains the GEF contribution, SETC contribution and counterpart financing.

Table A.1. Budget for FY 2002 in '000 US\$ equivalent

Cost Item	GEF	SETC	Industries/Institutions
Competitive Grant PV	300	0	300
Quick Response PV	100	0	100
Program Management	200	43	0
Program Support	100	0	100
Total	700	43	500

### 3. Staffing

The required staffing for FY 2002 is given in Table A.2.

Table A.2. Staffing for FY 2002

Staff	Time (months)	cost/month (US\$ equivalent)	Total Cost (US\$ equivalent)
TIC Manager	12	1,810	21,720 (SETC 19,548; GEF 2,172)
Management Assistant	12	725	8,700
Proposal Solicitation Officer	12	995	11,940
International Proposal Solicitation Expert	4	15,000	60,000
International Proposal Evaluation Expert	1	21,000	21,000
National Evaluation Experts	8	1,085	8,680
National travel cost			19,000
Office operation cost (rent, telephone, secretaries, etc.)			22,000 (SETC)
Total	51		173,040

The budget allocation for office operation is 22,000 US\$ equivalent. These funds will be provided by SETC. The travel cost is budgeted at 19,000 US\$. These costs will be covered by the GEF budget. Please note that the budget for FY 2002 is lower than the allocation given in Tables 7 and 8 of the PIP-TI and Table A.1. Un-disbursed funds are carried over to the subsequent year.

### 4. Activities by Element

#### 4.1 Competitive Grant

##### *Pre-selection*

Text for inviting industries and institutions for pre-selection will be formulated and submitted to the World Bank for review on or before 30 November 2001. After receipt of the NOL the invitation will be mailed to industries and institutions in the database of the PMO, advertised in a for PV industry and institutions relevant monthly journal and published on the Project Home Page on the internet. This will be done before 15 December 2001.

The closing date for submission of requests for pre-selection is 15 January 2002. Requests should reach the PMO before 11:00 AM on the 15<sup>th</sup> of January. Requests received, for whichever reason, after that date and time, will not be taken into consideration.

The requests for pre-selection will be reviewed by the TIC-Manager, with assistance of other TIC Unit staff or PMO staff. The TIC Manager will select from all request 50 industries or institutions interested in TI related to PV.

The TIC Manager will submit the lists to the NPEC not later than 31 January 2002. After approval by the NPEC, the final pre-selection lists will be submitted to the World Bank for review on or before 15 February 2002. The World Bank will comment on this list on or before 28 February 2002

Upon receipt of the World Bank "No Objection Letter" the Director of the PMO can inform the industries and institution that requested pre-selection on the outcome of the pre-selection process.

### *Information Meeting*

The information meeting for the pre-selected industries and institutions will be held in week 13 (25 to 29 March, 2002). The meeting will be held in Beijing. On the day following this meeting a training course will be offered on project formulation. The next day a training course will be offered on the preparation of a business plan. Participation in these training courses is not compulsory, but would be very useful for the pre-selected industries and institutions. Pre-selected industries and institutions that can not come to Beijing, will receive the proposal preparation package by mail.

The TIC Unit will organize the information meeting. All documentation and training materials will be prepared from 1 January to 28 February 2002. The International Proposal Solicitation Expert will provide assistance in doing this.

### *Tender Process*

The tender process will open on 1 April 2002. The closing date is 31 May 2002. The closing time is 11:00 AM Beijing time. Proposals received after that date and time, for whatever reason, will not be taken into consideration.

### *Ranking and Selection of Proposals*

The TIC Manager will evaluate the proposals, divide them in categories of 5 to 10 proposals, and prepare a ranking of the proposals within each category. After that the TIC manager prepares an overall ranking of all proposals on PV. The list of ranked proposals, with the justification for this ranking will be submitted to the NPEC on or before 30 June 2002. The NPEC proposal ranking evaluation will be held in week 29 (15 to 19 July, 2002). After finalization of the ranking, the list will be submitted to the World Bank for prior review on or before 19 July 2002. The World Bank will issue a NOL on or before 16 August 2002.

It is expected that in this tender round 15 PV related projects would be approved. The targeted number of proposals is about 40.

### *Grant Agreements*

Industries and institutions that submitted proposals for grant support under the competitive grant system will be informed on the results between 1 and 30 September, 2002. If a proposal is accepted for grant funding, the Director of the PMO will submit to the applying industry or institute a grant agreement. The industry or institute has to sign this agreement and return it to the PMO within 30 days after sending the agreement by the PMO. When the Director of the PMO signs the returned agreement the project is officially operational. The Director of the PMO will request the MOF to pay 30% of the grant approved to the industry or institution.

### *Areas of Support*

In FY 2002, the following areas will be supported:

- Solar home systems for rural applications from 10 to 37 Wp.

The areas of support will clearly be communicated in the invitations for pre-selection and in the invitation for proposals.

### *Components of Support*

Preference (in order of priority) will be given to proposals, related to PV, dealing with:

1. modules (10 to 37 Wp)
2. controllers
3. DC lights
4. system integration

Proposals on components not listed above but within the areas of support will be supported if the quality of the proposed work and chances of success are better than proposals on the preferred components.

*Activities that can be Supported*

- labor for research and development
- production of prototypes<sup>6</sup>
- field testing of prototypes<sup>7</sup>
- testing and certification
- depreciation (or rent) of equipment used for research and development over the period and extend the equipment is used for TI of PV components or systems
- training related to TI of PV components or systems
- purchase of specific software required for TI of PV components or systems
- materials required for TI of PV components or systems
- market studies for new or improved products
- studies on improved use of PV components or systems
- consultancy services related to research and development of PV systems and components
- travel cost related to TI of PV systems and components
- identification of potential local and foreign partners for the production of PV components and systems
- feasibility studies for the assessment of the feasibility of cooperation with local or foreign partners (joint ventures)

The standard labor costs used in the FY 2002 competitive grant system are 350 Yuan/day for a senior researcher and 250 Yuan/day and 150 Yuan/day for a researcher and assistant respectively.

*Project Size*

In FY 2002 the minimum grant support for projects under the competitive grant system is 2,500 US\$ equivalent (20,750 Yuan). The maximum grant support is determined by the total budget. This is 300,000 US\$ equivalent for PV. It is, however, unlikely that the available funds will be awarded to just one or a small number of projects.

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<sup>6</sup> A prototype is defined as the first unit or units resulting from design and development (look up in dictionary). The purpose of a prototype is to investigate if the design function as it is intended to do. A prototype is not intended for sale or lease.

<sup>7</sup> Field testing of prototypes is done to investigate how the design functions under real life conditions. The purpose is to learn from the field-testing and not to generate electricity. Extensive measuring, monitoring and testing must be a part of a field-testing program.

## **4.2 Quick Response Fund**

### *Eligible Industries*

The eligible industries are the pre-selected industries and institutions under the competitive grant system (see 4.1).

### *Funds Allocation*

It is the intention to allocate in each quarter only 25% of the total budget for PV under the Quick Response scheme.

### *Areas, Components and Activities Supported*

The areas, components and activities supported are the same as under the competitive tender system. However, under this scheme also projects in support of the application of soft loans will be supported, when these projects require support within the limits for this scheme.

### *Project Size*

The minimum GEF support provided is 2,500 US\$ equivalent. The maximum grant support is 10,000 US\$ equivalent. It is expected that the average grant provided will be 5,000 US\$ equivalent. Therefore, it is expected that under this scheme 20 PV projects can be supported.

## **4.3 Soft Loan Facility**

### *Application Support*

The application for the soft loan can be supported from the Quick Response Fund if the propose projects satisfies the criteria of this facility.

### *Monitoring*

The TIC Unit will monitor the application process for the soft loan and provide assistance where possible and useful.

## **4.4 Program Management**

### *Recruitment*

Latest 1 November 2001, the TIC Manager will have been recruited and will be available to start implementing the TIC Component. By that time, also the Management Assistant and the National Project Proposal Solicitation Officer will be recruited and ready to start working in the PMO office.

The International Proposal Solicitation Expert will be recruited for a period from 23 March 2002 to 19 May 2002.

The International RE Proposal Evaluation Expert will be required from 1 to 30 June 2002.

National Proposal Evaluation Experts will be required from 1 May to 18 June 2002. In total 8 working months are available for this.

### *Monitoring and reporting*

The main tasks of the TIC Unit will be the implementation of the Competitive Grant and Quick Response Facility. In addition the TIC Unit will carry out the identified and to be identified program support activities. Further, core program management activities, include monitoring, evaluation, reporting and planning. Details on this are given in Appendix 15 of the PIP TI. This Appendix will become Appendix 2 of the Annual plan for the TI Component.

#### 4.5 Program Support

The total GEF budget for program support in FY 2002 is 100,000 US\$. The following activities are planned under the program support system:

1. Industry and Institutions Information Meeting (date ...), Training Course on Project Preparation (date ...) and Training Course on Preparation of a Business Plan (date ...). Total cost 12,000 US\$.
  - Information meeting and course material (100 participants) 5,000 US\$ equivalent
  - rent of meeting and training rooms (3 days) 3,000 US\$ equivalent
  - national expert for organization and preparation 2,000 US\$
  - Miscellaneous 2,000 US\$
2. UNIDO Training Course on Technology Transfer Negotiations. Total cost 22,000 US\$
  - UNIDO Manual on Technology Transfer Negotiations (50 participants) 1,000 US\$
  - rent of course facility (5 days) 2,000 US\$
  - international travel UNIDO expert 4,000 US\$
  - fee UNIDO expert (10 working days) 8,000 US\$
  - DSA (16 days) 3,200 US\$
  - recruitment of a national expert to be trained as a trainer (10 working days) 1,000
  - Miscellaneous 2,800 US\$
3. Survey on the prices of PV components manufactured in China (both retail and wholesale prices and production cost). Total cost 28,000 US\$
  - recruitment national experts (6 working months) 12,000 US\$
  - recruitment international backstopper (5 working days) 3,000 US\$
  - national DSA (120 days) 6,000 US\$
  - travel cost 5,000 US\$
  - reporting 500 US\$
  - miscellaneous 1,500 US\$
4. Study on the importance of small wind (500 W and below). Total cost 14,000 US\$
  - recruitment of national expert (2 working months) 4,000 US\$
  - recruitment of international backstopper (5 working days) 3,000 US\$
  - national travel cost 3,000 US\$
  - national DSA (30 days) 1,500 US\$
  - reporting 500 US\$
  - miscellaneous 2,000 US\$
5. Advertisement for pre-selection. Total cost 3,000 US\$
  - advertisement in PV relevant technical journals 3,000 US\$
6. Staff training for TIC UNIT (Staff training in the Netherlands). Total cost 27,000 US\$
  - International travel 4,000 US\$
  - Local travel 1,000 US\$
  - Trainers fee 10,000 US\$
  - 60 days DSA, 12,000 US\$

The TOR's for these activities are given in Annex 1.

## **Annex 1. TORs of scheduled activities under the Awareness Building and Program Support element.**

### **1. TOR of institutions information meeting and training courses on Project and Business Plan Preparation**

#### **Objective**

Training of pre-selected PV industries and institutions on the formulation of proposals to be submitted for grant support under the TI Component and the required Business Plan. The training will increase the quality of the proposals and business plans and will increase the confidence of industries and institutions in applying for grant support. As a result it will save the industries time in completing the application and will increase the understanding why the requested information is required. These training courses will be organized in combination with the information meeting on the Competitive Grant Facility for institutions and industry.

#### **Activity**

Conducting a one day information meeting for pre-selected industries and institutions on the Competitive Grant Facility.

Conducting a two-day training course in which the pre-selected industries will be taught how to complete the application form and formulate a business plan. All questions in the application form and business plan format will be explained. Not only how to complete these questions, but also why they are asked and how this information will be used in the evaluation of the proposals.

#### **Target Group**

Pre selected industries and institutions.

#### **Duration, Timing and Place**

Three days, including the information meeting. The course will be held in Beijing.

#### **Other Information**

The Course will be conducted by the national Proposal Solicitation Officer and the TIC Manager with technical support of the International Proposal Solicitation Expert. The International Expert will be involved in the organization of the training course and will be the trainer of the national trainers. The course will be held in Chinese.

## 2. TORs of the UNIDO Training Course on Technology Transfer Negotiation

### **Objective**

The objective of the training course is to train industries and institutions in China who are considering to procure technology from somewhere else (national and international) on different alternatives for this and the advantages and disadvantages of the different methods. Further it will provide information on the responsibilities involved in technology transfer.

### **Activity**

Conducting a 3 day training course in China for 50 participants. The UNIDO Manual on Technology Transfer Negotiation will be used as the basic course material. The training course will be conducted in English. A national expert on technology transfer will be recruited to participate in the training course. The purpose of this is to see if this course in the future could be given by a national expert in Chinese. For this it would be required to translate the UNIDO manual into Chinese.

### **Target Group**

Pre-selected industries and institutions.

### **Duration, Timing and Place**

The duration of the training course is 3 days. The training course is scheduled for ..... The training will be held in Shanghai.

### **Other Information**

to be completed

### 3. TOR of survey on the prices of PV components manufactured in China

#### **Objective**

The objective of the survey is to understand the marketing price and cost of solar PV components, to identify the barriers of reduce the price and cost of those components and to develop a set of comments to PMO to reduce the price and the cost of manufacturing those components.

#### **Activity**

- Solar PV manufacture investigation;
- Marketing solar PV components sales price survey;
- Reporting for survey results;
- Workshop for survey results reporting.

#### **Target Group**

Pre-selected solar PV sales companies and solar module manufactures.

#### **Duration, Timing and Place**

The duration of the survey is 3 days. The survey is scheduled from March 10 to May 10 2002.

#### **Other Information**

An international expert will be involved this survey about one week and the international expert will mainly contribute for the report development. The local experts should be without any relations with the manufactures for the PV components.

#### 4. Study on the importance of small wind

##### **Objective**

The objective of this study to understand current manufacture, sales and marketing situation of small wind turbines for PV/Wind hybrid systems, to identify the barriers of small wind turbines commercialization.

##### **Activity**

- visit the major small wind manufactures;
- visit the potential wind components manufacture and suppliers;
- visit the financial and government institutions;
- visit the small wind turbine users;
- develop the survey report;
- hold a small seminar to discuss the findings.

##### **Target Group**

3 major small wind turbines manufacture and wind turbine users.

##### **Duration, Timing and Place**

The duration of the survey is 4 months. The survey is scheduled from May to August, 2002. The major survey will be held in Inner Mongolia and the coastal region.

##### **Other Information**

The local experts should be without any relations with the manufactures for wind components.

## 5. Advertisement for pre-selection

### **Objective**

The objective of this activity is to popularize the solar PV technology.

### **Activity**

- advertisement in PV relevant technical journal 3,000 US\$

### **Target Group**

PV Industries and Institutions which are interested to participate in the Technology Improvement Component.

### **Duration, Timing and Place**

15 December 2001

### **Other Information**

To be included.

**6. Staff training for TIC UNIT**

**Objective**

The objective of this training program is to increase the capability of the proposal solicitation staff in TIC UNIT.

**Activity**

- Training on work in an organization with such expertise, e.g. NOVEM of the Netherlands, about 30 days.

**Target Group**

Proposal Solicitation Staff of the TIC Unit

**Duration, Timing and Place**

30 days, as soon as possible after effectiveness, NOVEM, Netherlands

**Other Information**

To be included

## Appendix 9. Detailed Schedule for Pre-Selection to Contract Closing

Detailed time planning for the FY2002. This schedule is based on effectiveness by 1 September 2001. Dates may change in the first formal annual plan and the plans for subsequent years.

Activity	Deadline
Annual Plan Submission	31 August 2001
Annual Plan Approval	15 September 2001
Text for Request for Pre-selection Submission	30 November 2001
Text for Request for Pre-selection Approval	10 December 2001
Issuing Request for Pre-selection	15 December 2001
Closing date for submitting requests for Pre-selection	15 January 2002
Pre-selection list Submission to NPEC	31 January 2002
NPEC pre-selection meeting	8 February 2002
Pre-selection list submission to the World Bank	15 February 2002
Pre-selection list approval	28 February 2002
Informing companies and institutions who requested pre-selection	13 March 2002
Information meeting with pre-selected companies and institutions	27 March 2002
Opening date tender process	1 April 2002
Closing date tender process	31 May 2002
Preparation of ranking of proposals	30 June 2002
NPEC proposal ranking review meeting	15 July 2002
Submission of proposal ranking to the World Bank	19 July 2002
Final list proposal ranking	16 August 2002
Informing industries on outcome	1-30 September 2002
Contracts issued to companies and institutions	30 September 2002

# Appendix 10. Format for Grant-assisted Technology Improvement Projects

Date Received: ....

## APPLICATION FORM FOR SUBSIDY

No: ....

### Proposal for the Technology Improvement Program - Renewable Energy

-----  
**PROPOSAL SUMMARY**

- 1. For which system is this proposal (*tick*)
  - Competitive Grant
  - Quick Response Facility

2. Title of the project: (*a title should characterize the project, but less than 25 words*)

3. Aim of the project: (*a short description of the objective and targets in 50-100 words*)

4. Technology Development or Technology Transfer aspects in the project: (*50-100 words*)

5. Expected results of the project: (*50-100 words*)

#### 6. FINANCIAL DATA

- 6.1 Total project cost ..... Yuan
- 6.2 Support requested from the TI Program ..... Yuan
- 6.3 Other financial contribution ..... Yuan
- 6.4 Financial contribution proponent(s) ..... Yuan
- 6.5 Support requested from the TI Program as percentage of total project cost ..... %
- 7. Starting date: ..... (*dd/mm/yy*)
- 8. Completion date: ..... (*dd/mm/yy*)
- 9. Name primary or main proponent: ..... (*name organization*)
- 10. Number of secondary proponents: .....

**APPLICATION FORM FOR SUBSIDY**

No: ..

**Proposal for the Technology Improvement Program - Renewable Energy**Title of the project: *(same as on the front page, less than 25 words)*

--

Name of primary or main proponent:

System:  Competitive Grant  
 Quick Response Facility

---

***For official use only***

- Proposal is received on .. (dd/mm/yy) and received No: ..
- Proposal is received after deadline
- Proposal is not complete, missing information asked in letter dated .. (dd/mm/yy)
- Business plan is not appended
- Business plan is appended but market is still not clear
- Project is not about technology improvement
- Project is about basic research
- Project is not innovative for China
- Project subjects don't have priority in the TIC program
- Project does not lead to cost reduction or quality improvement of PV equipment in China
- Project activities take place outside China
- Project lacks cost sharing from proponent(s)
- Proponents don't have proper experience
- Proponents don't work together with parties with proper experience
- Proponents are not the right market parties to use or implement the result of the project, and are not working together with the right market parties
- Proponents can not assure the finance (except for grant)

11. DETAILED DESCRIPTION OF THE PROJECT

11.1 Title: *(same as front page: a title should characterize the project in less than 25 words).*

11.2 Aim and technology improvement objectives *(max. 150 words)*

11.3 Description of the project activities and work *(max. 400 words)*

11.4 Describe the role of the primary or main proponent and of the secondary proponents *(max. 200 words)*

11.5 Describe the innovative parts and the Technology Development or Technology Transfer aspects in the project: *(max. 200 words)*

11.6 Description of the expected results of the project: *(max. 200 words)*



11.7 Describe all references and literature used before starting

11.8 Describe the cooperation with relevant market parties or consultants.

11.9 Describe how you want to use and implement the results of the project.

11.10 Do you request financial assistance from the so-called Quick Response Fund? (*tick*)

Yes              
No            

If no, continue with question 12.

If yes, please make sure that the financial support you request from the Technology Improvement Component is between 20,000 and 80,000 Yuan and that the project will be completed in 9 months or less. Please motivate below why your project is **urgent** and why this project can not wait for the competitive grant facility. Please note that the same or similar project can not be submitted for both the Quick Response Facility and the Competitive Grant Facility.





## 12.3 Cost for subcontractors per proponent

sub-contractor	contracted by proponent	costs
TOTALS	n.a.	

Please note, this can also include subcontracts for testing, certification, production of items by workshop, etc. In fact every service, involving substantial labor for which the industry or institution can get a formal bill, can be considered a sub-contract.

## 12.4 Cost for materials

proponent	material and quantify	purpose description	costs
TOTALS	n.a.	n.a.	

## 12.5 Other cost (travel, etc.)

proponent	description expenditure	costs
TOTALS	n.a.	

Other cost must be less than 20% of total project cost.

## 12.6 Is the project already started?

No  Yes

## 12.7 Has any other subsidy/grant been requested for this project from any national (province/state/city), foreign or international public body.

No  Yes, how much and from which body?  
From: . . . Yuan . . .

If yes, has this subsidy/grant already been given or selected?

No  Yes

## 12.8 Financing

Finance source	funds committed	funds foreseen
grants/contribution / loans	Yuan	Yuan
TIC-RE (this program)		
Chinese government		
Province		
City		
Foreign		
International		
Own contributions		
proponents 1		
proponents 2		
proponents 3		
..		
Others contributions		
..		
..		
Loans		
..		
..		
TOTALS		

## 12.9 Remarks

--





## 14. INFORMATION ON THE PROPONENTS

### 14.1 Names and addresses of the proponents

---

Proponent No 1 (primary or main): *(abbreviated name)*  
Legal name:  
Legal registration number in China:  
Post address:  
Postal code, town, province/state:  
Authorized representative in the project:  
Position of this person:  
Telephone: Fax:  
Person responsible for the project:  
Position of this person:  
Visiting address:  
Postal code, town, province/state:  
Telephone: Fax:  
E-mail:

---

Proponent No 2: *(abbreviated name)*  
Legal name:  
Legal registration number in China:  
Post address:  
Postal code, town, province/state:  
Authorized representative in the project:  
Position of this person:  
Telephone: Fax:  
Person responsible for the project:  
Position of this person:  
Visiting address:  
Postal code, town, province/state:  
Telephone: Fax:  
E-mail:

---

Proponent No 3: *(abbreviated name)*  
Legal name:  
Legal registration number in China:  
Post address:  
Postal code, town, province/state:  
Authorized representative in the project:  
Position of this person:  
Telephone: Fax:  
Person responsible for the project:  
Position of this person:  
Visiting address:  
Postal code, town, province/state:  
Telephone: Fax:  
E-mail:

---

14.2 Main activities and experience of proponents in relevant technical fields

---

Proponent No 1.

Main activities (<50 words):

Experience in relevant fields (50-100 words):

Number of employees:

Turnover last fiscal year:

---

Proponent No 2.

Main activities (<50 words):

Experience in relevant fields (50-100 words):

Number of employees:

Turnover last fiscal year:

---

Proponent No 3.

Main activities (<50 words):

Experience in relevant fields (50-100 words):

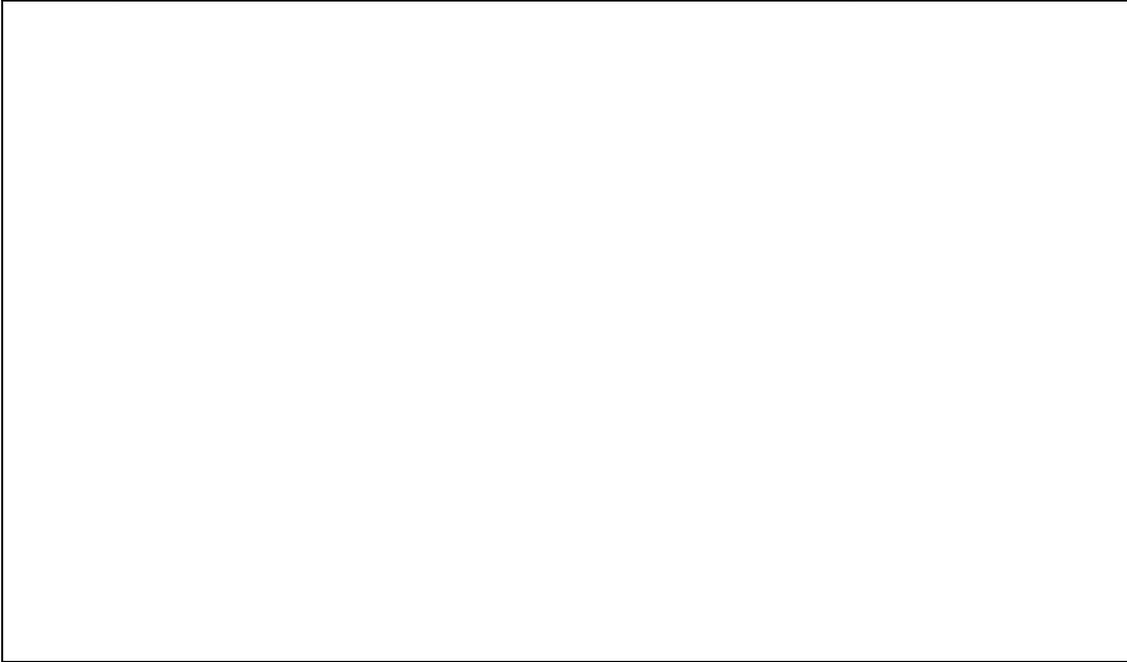
Number of employees:

Turnover last fiscal year:

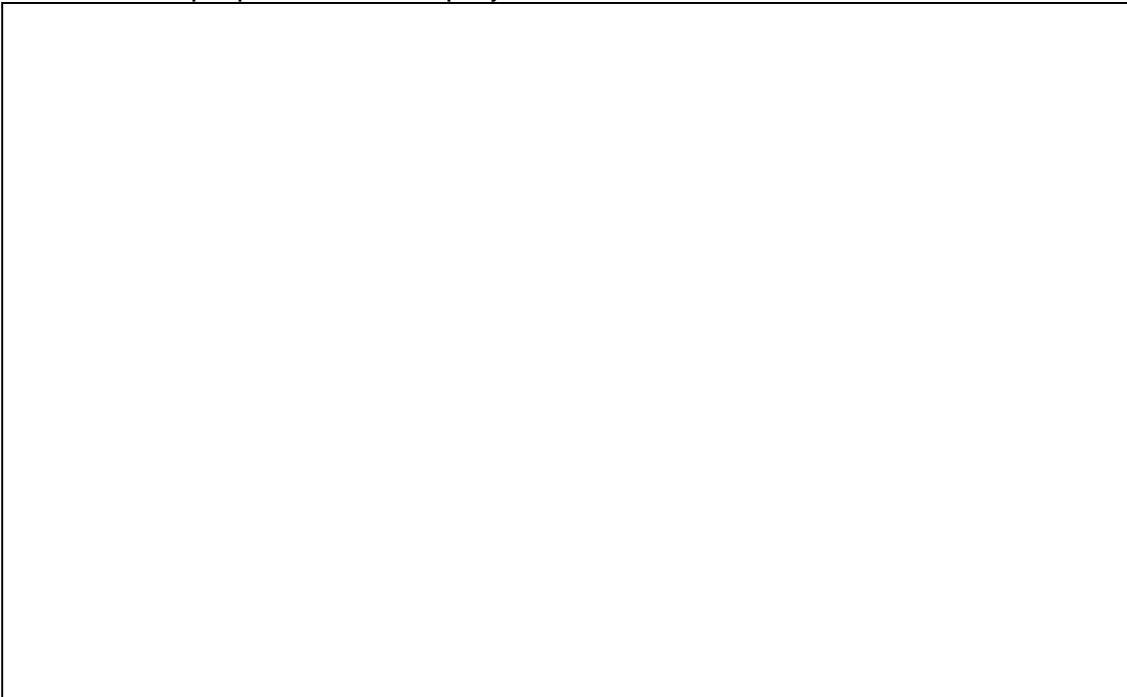
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*Add additional page if needed!*

14.3 If one or more of the proponents are joint ventures, give in 50-100 words for each joint venture relevant information on the mother companies.



14.4 Give information on the project management structure and of the tasks and role of each proponents in the project.



14.5 Describe the capability of the proponents to use the results of this project in PV equipment and/or in the Chinese PV market.

A large, empty rectangular box with a thin black border, intended for the respondent to provide a detailed answer to the question regarding the capability of the proponents to use the project results in the PV equipment and/or Chinese PV market.

15. MARKET

15.1 Describe your market expectations (sales, market share, profit, etc.) if this project is successful. *(an executive summary of your business plan in 100-200 words)*

15.2 Complete the Business Plan and attach to this form as Appendix 1. Make sure to include the name of the main proponent and project title. Proposals without a Business Plan will not be taken into consideration.

Business plan is attached *(tick)*

Business plan comprises

..... Pages

**APPLICATION FORM FOR SUBSIDY****No: . .****Proposal for the Technology Improvement Component - Renewable Energy****DECLARATION of the proponent(s)**

I/We, the undersigned authorized representative(s) for:

Name proponent 1: \_\_\_\_\_  
(abbreviated name)  
(official name)Name proponent 2: \_\_\_\_\_  
(abbreviated name)  
(official name)Name proponent 3: \_\_\_\_\_  
(abbreviated name)  
(official name)in the project under the Technology Improvement Component of the China Renewable Energy Development Project with the title: *(same as front page, less than 25 words)*

--

hereby submit the proposal to the State Economic and Trade Commission for financial support.

I/We do hereby certify that:

- ④ all data in this proposal are true and correct
- ④ that the project contributes to the objective of the TI Component
- ④ if the application is selected, the proponent(s) will (jointly) carry out the project in line with the proposal and (jointly) fulfill the commitments given
- ④ and that the costs specified will be incurred

For proponent 1: \_\_\_\_\_ (date/place)      For proponent 2: \_\_\_\_\_ (date/place)

representative 1: \_\_\_\_\_ (name)      representative 2: \_\_\_\_\_ (name)

\_\_\_\_\_ (position)      \_\_\_\_\_ (position)

For proponent 3: \_\_\_\_\_ (date/place)

representative 1: \_\_\_\_\_ (name)

\_\_\_\_\_ (position)

## Appendix 11. Business Plan Format

This example is for the Quick Response Facility. For the Competitive Grant Facility a more extended business plan will be required.

Name of Proponent (primary or main):

Title of the Project (same as on the front-page, less than 25 words):

--

Financial support system: (*tick*)     Competitive Grant (extended business plan required)  
 Quick Response Fund (brief business plan will suffice)

### I      **New or Improved Product or Service**

- 1.1 What is the new or improved product or service?  
*Improved Module*
- 1.2 Provide specific details on the improved product or service?  
*Module of 25 Wp using multi crystalline silicium cells, nominal voltage of 48 Vdc*
- 1.3 What is new or improved of the product or service?  
*Lower cost, 25 Yuan/Wp, while it can fulfill the World Bank quality requirements*

### II      **Market**

- 2.1 Is the new product or service intended for a new or existing market?  
*Existing and New, with the current price of 45 Yuan/Wp there is a market, however this market will increase substantially if the price drops to 25 Yuan/Wp*
- 2.2 To who will you sell your product or services?  
*I will sell to PV companies who will sell to households*
- 2.2 How big is this market (number of clients)?  
*50 PV companies in China*
- 2.3 What is the demand per client?  
*With the current price of 45 Yuan/Wp, the total market will be 2 MWp per year, or 40 kWp per client per year. However, with a price of 25 Yuan/Wp the market will increase to at least 4 MWp/year or 80 kWp/client/year.*
- 2.4 Which part of the market can you get with your new product or service?  
*With the low cost modules I should be able to get at least 25% of the new market. This is 1 MWp per year.*
- 2.5 How much of the product or service do you intend to produce?  
*I will start with the production of 1 MWp per year.*

### III      **Investment**

- 3.1 What is the total investment required to develop the product or service?  
*I will need 1.5 million US\$ equivalent.*
- 3.2 How will this product or service development investment be financed?  
*0.5 million US\$ equivalent investment by my company (equity investment), 0.5 million US\$ equivalent from GEF grant, 0.5 million US\$ equivalent from loan from commercial bank (not approved yet).*

- 3.3 After development, what is the cost for producing the product or service?  
*The production cost (including capital cost and depreciation) is 20 Yuan/Wp*
- 3.4 What is the payback time for the development of the product or service?  
*Two and a half year*

#### IV **Marketing**

- 4.1 How will you do your marketing?  
*I will first test my modules and get a certificate confirming the quality standard.  
Then I will approach all 50 PV companies and inform them that I can deliver PV modules at a cost of 25 Yuan/Wp (if they order 50 kWp or more).*
- *I will offer also a three month sales credit.*
- 4.2 How much will be your marketing cost?  
*not much, 5000 US\$ equivalent*

#### V **Supporting Evidence**

- 5.1 Do you have any evidence of the correctness on the above information?  
*Yes I did a market survey and have a report on this.*

## Appendix 12. TOR for the International Proposal Solicitation Expert

### Terms of Reference International Renewable Energy Proposal Solicitation Expert

#### Background

(To be added)

#### Scope of Work

The international proposal solicitation expert will assist the National Proposal Solicitation Officer in the successful solicitation of proposals of sufficient quality for technology development in PV from industries and institutions in China. The International Proposal Solicitation Expert will in particular:

- Advise the National Proposal Solicitation Officer on the best way to approach PV industries and institutions
- Accompany the National Proposal Solicitation Officer on visits to industries and institutions
- Assess the assistance the industries and institutions need to formulate high quality proposals
- Propose ways to provide the assistance needed by the industries and institutions (training, information, workshops, direct assistance, etc.)
- Propose ways to improve the proposal solicitation process
- Review the quality of the proposals received and propose ways to improve the quality

#### Deliverables

The International RE Proposal Solicitation Expert will produce the following deliverables:

1. A comprehensive report at the end of the first two months mission (date) with detailed description of the work done and recommendations for improving the quality (if required) and quality of the proposals or to improve the efficiency and effectiveness of the proposal solicitation process.
2. A comprehensive report at the end of the second three months mission (date) with detailed description of the work done and recommendations for improving the quality (if required) and quality of the proposals or to improve the efficiency and effectiveness of the proposal solicitation process.
3. Four monthly reports. One after each month of work in China. At the end of the third and last month each year the above reports will be prepared.
4. Visiting of at least 50 PV companies (manufacturing industries and related institutions). Of each visit a brief visit report will be prepared.
5. Participating in at least 4 training workshops for industries and institutions for the preparation of TI Proposals for grant support.

#### Schedule

The International RE Proposal Solicitation Expert will be required for two split missions of two months each. The first mission will be just after effectiveness of the China Renewable Energy Development Project, tentatively scheduled for 1 September 2001. The first mission is tentatively scheduled in April-May 2002. The second mission will need to take place in the second year of the program.

**Qualifications**

The International RE Proposal Solicitation Expert will have the following qualifications:

- vast experience in the field of renewable energy technologies
- particular experience in the field of PV
- experience in implementation of technology improvement programs
- understanding of the positions of industries and institutions with respect to technology improvement
- understanding the difficulties companies and industries may have in applying for financial support for technology improvement
- experience in working in developing countries
- experience of working in China is not a requirement, but would be an advantage

## Appendix 13. TOR for the International Proposal Evaluation Expert

### **Terms of Reference International Proposal Evaluation Expert**

#### **Background**

To be added.

#### **Scope of Work**

The international proposal evaluation expert will, together with National Experts, assist the TIC Manager in the evaluation of proposals received under the Grant-assisted Technology Improvement Projects system (competitive grants). The International Proposal Evaluation Expert will in particular:

- Review the English translations of the TI project proposals and the attached business plans
- Complete/modify the English translations, based on discussion with the TIC Manager and National Project Evaluation staff
- Assess the strong and weak points of the proposals and business plans and the missing information
- Assist the TIC Manager in the ranking of the proposals
- Discuss the ranking of the proposals with the TIC Manager and National Proposal Evaluation experts
- If necessary, identify ways to improve the proposals so that at least a minimum number of proposals meet WB/GEF quality standards
- Suggest issues which should specifically be covered in the contract between the PMO and the proponents if the proposal would be selected for financial support
- Identify lacking proposals required for achieving the TI Component objective or which would improve the impact achieved by the TI Component
- Suggest issues to include in next years annual plan or activities to be undertaken by the proposal solicitation officer

#### **Deliverables**

The International Proposal Evaluation Expert will produce the following deliverables:

1. A comprehensive report at the end of each mission (of one-month duration) with detailed description of the work done and recommendations for future years implementation.

#### **Schedule**

The services of the International RE Proposal Evaluation Expert will be required for five separate mission of one month each over a period of 5 successive years. The first mission will be just after the closing date of the "Competitive Grant Tender", tentatively scheduled for June 2002.

**Qualifications**

The International RE Proposal Solicitation Expert will have the following qualifications:

- vast experience in the field of renewable energy technologies
- particular experience in the field of PV
- experience in implementation of technology improvement programs
- experience in selecting proposals in a RE technology improvement program that have the highest contribution towards achieving the program objectives
- experience in working in developing countries is an advantage
- reading Chinese would be a major advantage

Appendix 14. Standard Contract Between PMO and Proponents

TI SUBGRANT AGREEMENT  
on TECHNOLOGY IMPROVEMENT  
Between  
State Economic and Trade Commission

And

**XXXXX**

(name of the primary or main proponent)

**XXX, 1998**  
**Beijing, China**

Contract Number: **XXXX**

This TI Subgrant Agreement (hereafter called the “Agreement” is made on **XXX (date)**, between, on the one hand, the Project Management Office (PMO) of GEF/WB China Renewable Energy Development Project, of the State Economic and Trade Commission (hereafter called the “PMO”), and, on the other hand, **XXX** (hereafter called the “Proponent”). This agreement is based on the Technology Improvement sub-project proposal (hereafter called “Proposal”) prepared by the Proponent and received by the PMO on **XXX (date)**.

Whereas

- a) The proponent has requested the PMO to financially support the Technology Improvement sub-project **PROJECT TITLE** (hereafter called “Project”) for technology improvement of PV Components/Systems.
- b) The PMO has agreed to financially support the project on the terms and conditions set forth in this Agreement.
- c) The proposal prepared by the proponent will form an integral part of this agreement and is attached as Appendix 1.
- d) The total size of the proposed project by the proponent is **XXXX** Yuan.
- e) The PMO will provide financial support for the project, up to a maximum of **XXX** Yuan and **XXX (this percentage must be the same as the percentage requested by the proponent)** percent of the actual project cost.
- f) The proponent agrees to complete the proposed project by **DATE**, and that activities after that date will not receive any financial support by the PMO.
- g) The Government of China has received a grant from the Global Environment Facility (hereafter called the “GEF”) towards the cost of Technology Improvement projects on PV components and systems. It is understood (I) that payment from this grant to the proponent will be made upon request by the PMO, (II) that such payments will be subject, in all respects, to the terms and conditions of the agreement.

NOW THEREFORE it is hereby agreed by and between the parties hereto as follows:

## ARTICLE I

### The activities

Section 1.01. The Activities to be carried out under the project are described in the Appendix 1 attached hereto (the Appendix 1)

Section 1.02. The proponent shall carry out these activities with due diligence and efficiency and in accordance with sound technical, financial, managerial and environmental standards and practices.

Section 1.03. Day to day management of the Activities shall be the sole responsibility of the Proponent.

Section 1.04. The Proponent shall submit progress reports, acceptable to the PMO, according to the schedule included in this agreement.

Section 1.05. The Proponent shall keep and maintain accurate, adequate and systematic accounts and records in respect of the activities in such form and detail as the PMO may reasonably request.

Section 1.06 The Proponent shall furnish to the PMO such information related to the project as the PMO may from time to time request, and immediately inform the PMO of any problem that may adversely affect implementation of the project.

## ARTICLE II

### Procurement

#### Section 2.01.

The goods and services to be financed from the TI Subgrant shall be procured at reasonable price, account being taken also of other relevant factors such as time of delivery and efficiency and reliability of the goods and availability of maintenance facilities and spare parts therefore.

#### Section 2.02.

The goods and services procured shall be used exclusively for carrying out the TI Subproject.

#### Section 2.03.

For goods procured for the TI Subproject, the proponent shall take out and maintain with responsible insurers such insurance, against such risks and in such amounts, as shall be consistent with sound business parties. Without any limitation upon the foregoing, such insurance shall cover hazards to the acquisition, transportation and delivery of goods financed from the TI Subgrant to the place of use or installation, any indemnity thereunder to be made payable in a currency freely usable by the proponent to replace or repair such goods.

## ARTICLE III

### Costs and Payments

#### Section 3.01.

- a) The PMO shall pay the Proponent a contribution towards activities specified in Appendix 1 hereto, an amount not to exceed **XXX** Yuan or **XXX** percent of the total project cost, whichever is lowest.

The payment schedule will be:

**XXX** Yuan upon receipts of a confirmed copy of this Agreement

**XXX** Yuan upon receipts of **SPECIFY (note, second payment is optional)**

**XXX** Yuan upon receipts of a project completion report acceptable to the PMO.

- b) Any amount paid by the PMO in accordance with this Section by the completion or termination of the project, in excess of **XXX (same as under a)** percent the cost that actually has been incurred by the Proponent, shall be reimbursed by Proponent to the PMO within 30 days after receipt by Proponent of notice thereof.

## ARTICLE IV

### Ownership of the results

Section 4.01. All results from the project shall be the property of the Proponent.

## ARTICLE V

### Termination

#### Section 5.01.

- a) This agreement may be terminated by the PMO when the proponent does not meet the reporting obligations or does not achieve the intermediate milestones. The PMO will give the Proponent a written notice of the intention to terminate the agreement. If the Proponent meets the

obligations within 30 days after the date of the written notice, the agreement will not be terminated. If the Proponent fails to do this the PMO will terminate the agreement not less than 30 days after the date of the written notice. The proponent will be informed on the official date of termination of the agreement.

- b) Upon termination of the agreement, no payment shall be due to the Proponent except for activities that are satisfactorily performed, for expenditures incurred thereunder prior to the date of such termination. The total payment thereunder shall in no case be greater than total amount specified in Section 2.01 and 25%.
- c) The Proponent will not receive financial support for activities undertaken after the date of termination of the agreement.

ARTICLE VI

Authorized Representatives; Notices and Requests

Section 6.01. Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract may be taken or executed in behalf of the Proponent ~~XXXX~~ and his/her designated representative.

Required to be given or made, at such party’s address specified below or at such other address as the party shall have specified in writing to the party giving such notice, or making such request.

ARTICLE VII

Confidentiality

Section 7.01. The PMO and its staff will keep all information provided by the Proponent in the Proposal, supporting documentation and in the required reporting to the PMO, confidential.

Section 7.02. When information obtained by the PMO from the Proponent will be used for management of the program it will only be done so in an aggregated manner so that the origin of the specific information is unknown and un-knowable for parties other that the PMO and the Proponent.

ARTICLE VIII

Effectiveness

Section 8.01. This Agreement shall become effective upon signature by both parties.

Section 8.02. If activities under the project do not commence within six months following the date of effectiveness, this Agreement and all obligations of the parties thereunder shall terminate, unless the parties agree to continue this Agreement on mutually satisfactory terms and conditions.

ARTICLE IX

Reporting

Section 9.01 The Proponent shall provide the following reports acceptable to the PMO on or before the date specified thereunder:

First intermediate report	Date
Second intermediate report	Date
End of Project Report	Date

Section 9.02 The proponent shall provide the following evidence acceptable to the PMO on or before the date specified thereunder:

Evidence of SPECIFY	Date
Evidence of SPECIFY	Date

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be signed in their respective names as of the day and year first above written

FOR AND ON BEHALF OF  
Project Management Office (PMO)  
GEF/World Bank China Renewable Energy Development Project  
The Department of Resource Conservation and Comprehensive Utilization  
The State Economic and Trade Commission  
No. 26, Xuanwumen Xidajie, Beijing, 100053, China  
Fax: 86-10-63193460

By XXXX  
Director of the PMO  
Authorized Representative

FOR AND ON BEHALF OF  
XXXXXX

By XXXX  
XXXXXX  
Authorized Representative

## Appendix 15. Quarterly Report

The main tasks of the TIC Unit are the implementation of the Competitive Grant Facility, the Quick Response Facility and the implementation of identified and to be identified Program Support activities. In addition the TIC Unit will carry out the monitoring, evaluation, reporting and planning of the TI Component. These activities are necessary to achieve the objectives of the TI Component to the extend possible.

In the Quarterly Report of the TI Component, the PMO will need to provide sufficient information for the World Bank/GEF and SETC to assess the progress of the TI Component. This information will be provided in the form of data tables.

The completion of the following tables is required:

- Monitoring Data Tables for Competitive Grant Facility (Appendix 15, Table A15.1 and Table A15.2)
- Monitoring Data Tables for Quick Response Facility (Appendix 15, Table A15.3, Table A15.4 and Table A15.5))
- Monitoring Data Table for Soft Loan Facility (Appendix 15, Table A15.6 and Table A15.7)
- Monitoring Data Tables for Program Management Element (Appendix 15, Table A15.8 and Table A15.9)
- Monitoring Data Tables for Awareness Building and Program Support Element (Appendix 15, Table A15.10, Table A15.11, Table A15.12 and Table A15.13)

**Table A15.1 Monitoring Data Table for Competitive Grant Facility, Statistics**

<b>Reporting Period:</b> from (Date) to (Date)				
<b>Competitive Grant Round:</b> (Number)				
Indicator	PV Industries		PV Institutions	
	Target	Actual	Target	Actual
Number of pre-selected industries or institutions				
Number participated in the information meeting				
Number participated in Project Formulation Training Course				
Number participated in business plan formulation training course				
Number visited by Project Solicitation Officer (PSO)				
Number Competitive Grant Facility proposals received before deadline				
Number of these proposals of which proponents were visited by PSO				
Number of Competitive Grant Facility proposals received after deadline				
Number of these proposals of which proponents were visited by PSO				
Number of proposals received before deadline that were complete				
Number of these proposals of which proponents were visited by PSO				
Number of proposals received before deadline were evaluated & ranked				
Number of these proposals of which proponents were visited by PSO				
Average size of proposals received before deadline ('000 Yuan)				
Number of TI subgrant contracts on CG's signed by (Date)				
Date of issuing the invitation for pre-selection				
Date of informing the industries on the outcome of pre-selection				
Date of information meeting for the competitive grant facility				
Date of training course on project formulation				
Date of training course on business plan preparation				
Date of deadline for competitive grant facility				





**Table A15.3 Monitoring Data Table for Quick Response Facility, Statistics**

<b>Reporting Period:</b> from (Date) to (Date)				
<b>Project Year:</b> (Number)				
Indicator	PV Industries		PV Institutions	
	Target	Actual	Target	Actual
Number of proposals received in reporting period				
Number of proposals received related to Soft Loan Facility				
Total value of proposals (Yuan)				
Average size of proposals (Yuan)				
Number proponents participated in project formulation training				
Number proponents participated in business plan formulation training				
Number proponents visited by Project Solicitation Officer (PSO)				
Number of proposals received in reporting period approved				
Number of proposals received in previous reporting period approved				
Number of proposals received before previous reporting period approved				
Average time between receipt and contract current reporting period				
Shortest time between receipt and contract current reporting period				
Longest time between receipt and contract current reporting period				
Number of contracts awarded				
Number of contracts awarded related to Soft Loan Facility				
Total value of awarded contracts (Yuan)				
Average value of contracts awarded (Yuan)				
Date of information meeting for the quick response facility				
Date of training course on project formulation				
Date of training course on business plan preparation				





**Table A15.5 PMO Special Account for the Quick Response Facility Statement**

Reporting Period:	
Account Number:	
Name of Account Holder:	
Currency:	
Date Beginning Balance (dd/mm/yy):	
<b>Beginning Balance (Yuan):</b>	
<b>ADD</b>	
Total Amount Deposited by MOF (Yuan):	
Total Interest Earned This Period (Yuan):	
Total Amount Refunded from Contractors (Yuan):	
<b>DEDUCT</b>	
Total Amount Paid to Contractors (Yuan):	
Total Service Charge if not Included in Total Amount Withdrawn (Yuan):	
Total Amount Refunded to MOF (Yuan):	
<b>Ending Balance (Yuan):</b>	
Date Ending Balance (dd/mm/yy):	

**Table A15.6 Monitoring Data Table for Soft Loan Facility, Statistics**

<b>Reporting Period:</b> from (Date) to (Date)				
<b>Project Year:</b> (Number)				
Indicator	PV Industries		PV Institutions	
	Target	Actual	Target	Actual
Number of requests to TIC-Unit for information on Soft Loan Facility				
Number of requesters actually assisted in the application of Soft Loan				
Number of Quick Response Facility projects approved that will assist in the application of Soft Loans				
Number of Soft Loan applications submitted to commercial banks for approval in principle with assistance of TIC-Unit				
Number of applications commercial banks approved in principle				
Average size of the Soft Loan applications (Yuan)				
Number of Soft Loan applications submitted to SETC w.a.o. TIC-Unit				
Number of applications approved by SETC				
Average amount of SETC contribution				
Number of Soft Loan applications submitted to SETC without s.o. TIC-Unit				
Number of these applications approved by SETC				
Average size of the Soft Loan request in these applications (Yuan)				
Average size of SETC contribution in these projects (Yuan)				
Average time from contacting TIC-Unit to application of Soft Loan with commercial banks (c.b.) (days)				
Average time from submitting application to c.b. and answer (days)				
Average time from answer c.b. to submission to SETC (days)				
Average time from submission to SETC and answer (days)				
Average time from approval by SETC to closure of Soft Loan (days)				
Average time from closing Soft Loan to commencing activities (days)				
Date of information meeting for Soft Loan facility				
Date of training course on Soft Loan application and procedures				
Date of training course on Soft Loan application formulation				









**Table A15.10 Monitoring Data Table for Awareness Building and Program Support, Statistics****Reporting Period:** from (Date) to (Date)**Project Year:** (Number)

Indicator	In Reporting Period		In Project Year (cumulative)	
	Plan	Actual	Plan	Actual
Number of activities carried out under awareness building and program support				
Total value of these activities (Yuan)				
Number of activities carried out under awareness building and program support classified as training				
Total value of these training activities (Yuan)				
Total number of people trained in these activities				
Number of activities carried out under awareness building and program support classified as studies				
Total value of these studies (Yuan)				
Number of reports prepared under the awareness building and program support element				
Number of activities carried out under awareness building and program support classified as awareness building				
Total value of these awareness building activities (Yuan)				
Total number of people reached with these awareness building activities				
Total number of activities for which the TIC-Unit requested prior review by the World Bank				
Average duration between sending request for prior review and obtaining an answer (days)				
Average time from approval by SETC to closure of Soft Loan (days)				





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**Table A15.13 PMO Special Account for the Awareness Building and Program Support Element Statement**

Reporting Period:	
Account Number:	
Name of Account Holder:	
Currency:	
Date Beginning Balance (dd/mm/yy):	
<b>Beginning Balance (Yuan):</b>	
<b>ADD</b>	
Total Amount Deposited by MOF (Yuan):	
Total Interest Earned This Period (Yuan):	
Total Amount Refunded from Contractors (Yuan):	
<b>DEDUCT</b>	
Total Amount Paid to Contractors (Yuan):	
Total Service Charge if not Included in Total Amount Withdrawn (Yuan):	
Total Amount Refunded to MOF (Yuan):	
<b>Ending Balance (Yuan):</b>	
Date Ending Balance (dd/mm/yy):	



## Appendix 16. Bi-Annual Report

The outline of the bi-annual report is given in section 8.2 of the main text. In Appendix 16, only the data tables are given that are in addition to the data tables for the quarterly reports.

The completion of the following additional tables is required for the bi-annual report:

- Performance Indicators Monitoring Data (Table A16.1)
- Consolidated Financial Reports for the TI-Component (Table A16.2)

**Table A16.1 Performance Indicators Monitoring Data**

<b>Reporting Period:</b> from (Date) to (Date)		
<b>Project Year:</b> (Number)		
<b>Indicator</b>	<b>FY (year) Target (Period)</b>	<b>FY (year) Actual (Period)</b>
<b>PV</b>		
Number of Chinese module manufacturers meeting Oct. 1998 specifications		
Number of Chinese controllers manufacturers meeting Oct. 1998 specifications		
Number of Chinese battery manufacturers meeting Oct. 1998 specifications		
Number of Chinese DC light manufacturers meeting Oct. 1998 specifications		
Number of Chinese inverter manufacturers meeting Oct. 1998 specifications		
Wholesale price 20 Wp module (100 units minimum) in Yuan		
Wholesale price controller (12V/5-7 A) (100 units minimum) for 20Wp system in Yuan		
Wholesale price battery (12V/30Ah) (100 units minimum) for 20 Wp system in Yuan		
Wholesale price DC lights (12V/9W) (100 units minimum) for 20 Wp system in Yuan		
Turn Key cost 20 Wp system with 2 DC lights in Yuan		
Wholesale price 50 Wp module (100 units minimum) in Yuan		
Wholesale price controller (24V/10 A) (100 units minimum) for 50Wp system in Yuan		
Wholesale price inverter (24V/50 VA) (100 units minimum) for 50Wp system in Yuan		
Wholesale price battery (24V/60 Ah) (100 units minimum) for 50 Wp system in Yuan		
Wholesale price DC lights (24 V/9W) (100 units minimum) for 50 Wp system in Yuan		
Turn Key cost 50 Wp system with 3 DC lights, radio and TV in Yuan		
<b>Institutional Strengthening</b>		
Number of proposals received for Competitive Grant Facility which are of good quality		
Number of proposals received for Quick Response Facility which are of good quality		
Number of participating industries and institutions		
Number of courses/training given		
Total number of participants in courses/training		

**Table 16.2 Consolidated Financial report**

<b>Reporting Period:</b> from (Date) to (Date)					
<b>Project Year:</b> (Number)					
Elements	Sub-element	Cumulative Amount Paid (Yuan)	Cumulative Amount Allocated (Yuan)	Cumulative Budget to End Reporting Period (Yuan)	Total Budget (Yuan)
Grant-Assisted Technology Improvement Projects (Competitive Grant Facility)					
Grant-Assisted Small Technology improvement projects (Quick Response Facility)					
Investment Projects Assisted by Loans (Soft Loan Facility)					
Program Management	National Experts				
	International Experts				
	Travel				
Awareness Building and Program Support					
<b>Total</b>					

