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22864
(1 of 3)

UNIDO contract No.: 02/018
UNIDO project No.: EG/CPR/99/G31
Activity code: 450D32
P.O.No.: 16000133

The Final Report

to

The United Nations Industrial Development Organization (UNIDO);

for the Contract Entitled

Provision of Services Relating to the Establishment of the Production Technology and Product marketing Consortium (PTPMC) in P.R.China

for the Project

Energy Conservation and GHG Emissions Reduction in Chinese TVEs – Phase II

Prepared by

Center for Renewable Energy Development (CREED)

October 17, 2003

43p
to
signature

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1.00 Introduction & acknowledgement

Introduction:

This report is the third progress report submitted to the United Nations Industrial Development Organization (UNIDO) prepared by the Center for renewable Energy Development (CRED) as the contractor according to the requirements of contract of “Provision of Services Relating to the Establishment of the Production Technology and Product marketing Consortium (PTPMC) in P.R.China” between UNIDO and CRED, related to the project of “Energy Conservation and GHG Emissions Reduction in Chinese TVEs – Phase II”.

According to the requirements of the contract, this progress report is a summary of works and activities from end of October to the end of December 2002, including following contents,

- a. Summary of final progress based on the TORs
- b. Final of Business Plan of PTPMC brief
- c. TORs PTPMC support measures

Acknowledgement:

The accomplishment of the sub-contractor is a joint effort of CRED, IT Power and ERM. Here, we would like to thank all the participants of the joint team for their hard work and contribution during the accomplishment of the work. Many of the thanks will be sent to all the PMO, PTPMC secretary and the current PTPMC staff, Ms. Mounira Latrech, Dr. Enver Khan, Dr. Zhihong Zhang and other UNIDO staff. With the support of them, the hard work of the establishment of the PTPMC becomes a challenge and interesting task. Special thanks to UNDP staff and the NPD for their smart leadership and decision made in the challenge work.

2.00 Summary of Progress

According to the working program in sub-contract proposal, there are following five tasks for the sub-contract,

- Task 1 Registration of the PTPMC
- Task 2 Formulation of medium to long-term business plan
- Task 3 Identification of PTPMC members
- Task 4 Database design and programming
- Task 5 Preparation of training materials and training activities for PTPMC

By the end of September 28, 2003, CRED has finished all the tasks as detailed on the terms of reference dated February 8 of 2002. The detailed brief of the tasks accomplishment is listed as following:

2.01 Task one: Registration of PTPMC

CRED has made accomplishment of all the activities in the registration of PTPMC:

- 1) Conducted a market survey for the register of the PTPMC and supplied recommendations to PMO and PTPMC Secretary.
- 2) Prepared all the materials and documents, such as application forms, shareholder agreement and articles of PTPMC for the registration of PTPMC;
- 3) Finished the register the PTPMC in the middle of July, 2003, in Beijing;
- 4) Set up local bank account already and the foreign currency bank account will be set up after the first international contract to be signed.

And all the legal documentations for the PTPMC are listed as bellows are attached in the final report:

- ♦ Lesions of the entity operation
- ♦ Article of the entity
- ♦ Taxation registration
- ♦ Institutional ID

2.02 Accomplishment of Final Draft of Medium to Long Term Business Plan

- 1) A draft outline of the PTPMC business plan was made agreed by all the stakeholders in the end of August, 2002;
- 2) The first draft of the business plan was submitted to UNIDO by CRED with the second progress report

at the end of October. As discussed in the previous report, the first draft was presented to PMO and PTPMC Secretariat for comments and a further progress meeting was held on October 25, 2002, between PTPMC and representatives of CRED and IT Power. This meeting discussed in particular the business model and defined the steps needed to complete the plan. The key issue raised at the meeting was the perceived over-ambitious targets for growth of Revolving Capital Fund (RCF) supports projects. Further extensive development of the plan was undertaken through November, including revisions to downscale the growth projections of the model, and definition of the Marketing Strategies and Implementation Plan.

- 3) The second draft of business plan, particularly focusing on the service descriptions, marketing and implementation plans and financial assumptions, was (re)presented to the PTPMC Secretariat, Chief Technical Advisor (CTA) and representatives of PMO, Policy Implementation Committee (PIC) and Agriculture Bank of China (ABC) at the training workshop on November 22-23, 2002, where it received broad endorsement.
- 4) The third draft of business plan was submitted to and introduced on the mid-term review meeting for comments. This draft was revised on November 27, 2003, according to comments on the first and second day of the final training. On the mid-term review meeting, the suggestion for modification about the third version of business plan was gotten.
- 5) The final draft of the business plan incorporating some clarifications and additions identified of the mid-term review meeting was completed at the end of December, 2002. In the final draft, the PTPMC membership criteria were added, based on objective of set up PTPMC and the several times discussion with PMO and the secretary of PTPMC.
- 6) The final business plan was finished in 22 of September 22, 2003 and the details of the business plan briefed in session 3.00.

2.03 Identification of PTPMC Members

The potential PTPMC members including information on local & international service providers in the field of energy efficiency technology, training, information and financing etc. has been collected and the detailed information has been input in to the database of the PTPMC. There are now almost 260 institutions, companies, enterprises and organizations in the list, including 85 local candidates and 174 international candidates. The detailed information for the potential PTPMC member list has been submitted to PMO and UNIDO with the third progress report.

2.04 Database Design and Programming

The design of database was finished in August of 2002 and drafted by the end of October 2002. After that number of modifications have been conducted based on the request of the users. (PTPMC, secretary and PTPMC itself. In addition, CRED has upgrade the developed PTPMC database to a Browser Server (B/S)

mode online database driven website in February 15, 2003. All the data-base system has been installed in the PTPMC office.

2.05 Preparation of Training Materials and Conducting Training Activities for PTPMC

The training materials have been developed and used in the first and second training workshops. And related information for the training package has been delivered in the third progress report.

2.06 Additional activities beside the TORs

Coordination with RCF sub-contractor: Representatives of the sub-contractor team, CRED and IT Power, participated in a meeting with the CTA and representatives of the PTPMC, PMO, ABC and the Financial Policy Research Center of Renmin University at the PMO offices on November 26. The purpose of the meeting was to introduce the Renmin University Team – who is responsible for developing the model for implementation of the RCF – to the PTPMC business plan team, and in particular the envisaged close coupling between PTPMC and the RCF. CRED also participated the kick-off meeting for the subcontract of RCF, which was held on November 29, and it was emphasized again on the meeting about the importance of coupling of PTPMC and RCF.

Development of the terms of reference for PTPMC support measures: Additional supports for the sustainable development of PTPMC, was agreed by stakeholders, during the video conference in May 21 of 2003. Based the request of PMO and UNIDO, the terms of reference for PTPMC support measure has been developed and the details listed in Session 4.00.

3.00 Business Plan of PTPMC brief

The contents of the final business plan briefed following:

3.01 Chapter one: Introduction

This Business Plan is intended to serve as an internal document to assist the Production Technology and Product Marketing Consortium (PTPMC), now formally registered as the HongYuan Energy And Environmental Protection Company Limited, in its decision making and to indicate a range of services that PTPMC can offer its clients, and to highlight possible revenue models for these services.

Most importantly, the Business Plan will investigate a number of scenarios aimed at 'growing' PTPMC as a sustainable business entity in the medium to long term. In this context 'sustainable' implies that, after a start-up period of 3 years, income from the provision of services to clients will be sufficient to support the business without the need for additional support from UNIDO or other agencies.

3.02 Chapter two: Summary

Township-Village Enterprises (TVEs) constitute a significant share of Chinese economic production and social welfare, accounting for over 30 % of China's Gross Domestic Product, 47.3 % of Chinese industry 'Added Value', and employing almost 130 million people. TVEs also contribute significantly to local and global environmental problems, accounting for a quarter of the entire Chinese demand for conventional energy sources. Within the TVE sector as a whole, brick manufacture, cement production, metal casting and coking industries account for over 58 % of the TVE energy consumption, but contribute less than 14 % of the TVEs added value. Furthermore, these four sub-sectors typically utilize 37 % to 57 % more energy per unit of production than is required for international state-of-the-art production.

In early 1999, UNDP/GEF approved the project 'Energy Conservation and Greenhouse Gas (GHG) Emissions Reduction in Chinese TVEs'. This project aims to reduce GHG emissions in China from the four TVE sectors previously mentioned by increasing the utilization of energy efficient technologies and products. The project removes key market, policy, technological, and financial barriers to the production, marketing and utilization of energy efficient technologies and products in these industries.

Foundation support from the project implementing agency, UNIDO, as well as from the TVE Center and the Agriculture Science and & Technology Development Center, aims to establish PTPMC as a mechanism for enabling energy efficiency projects within the four TVE sub-sectors. PTPMC has been established with key shareholders IE Energy and Environmental Protection Company and ZhongNong Company and is called Hongyuan Energy And Environmental Protection Company Limited, with registered address at 41 Maizidian

Street, Chaoyang District, Beijing, China 100026 (tel: +86 (0) 10 65929549, fax: +86 (0) 10 65929549, website: www.ptpmc.com)

This business plan presents a financial model and implementation strategy aimed at maintaining PTPMC as the commercial hub of TVE Energy Efficiency product and service flows beyond the foundation support period, based on services that it can provide to a range of customers, notably the target sector TVEs, energy related service providers and product manufacturers from China and internationally, business service providers, the finance sector, Government of China and its ministries and international development agencies.

Our vision of PTPMC is one organization consisting of two complementary service groups:

- PTPMCS Core Services group will provide a variety of services to the subscribing consortium members, notably project identification services and inward business development assistance (such as product promotion, advice on policy and business environment and intermediary support such as technical translation assistance). The core services group will also provide essential business development assistance (training, workshops and accreditation), energy efficiency project formulation and tender evaluation and co-finance identification functions for Township and Village Enterprises from the key sub-sectors of brick making, cement production and metal casting, as well as coking production. The business development assistance may be provided on behalf of development agencies or concerned government departments, and in the longer term will be self-financing.
- PTPMCS Consulting Services group will be an independent private-sector focused group providing fee-for-service activities, such as energy audits for TVEs, project feasibility studies to determine whether projects qualify for international support such as the Clean Development Mechanism, pre and post project implementation due-diligence for TVEs and the finance sector, and policy support functions (e.g. resource assessments) for GoC and others, as well as product development cooperation with other PTPMC Members. Please note: It is intended that, during the Project Period, this group will provide technical support to the PTPMC Core Services Group and carry out only limited private sector work, where there is no conflict of interests with the members. After the Project Period, if conflicts of interest arise then PTPMC must weigh up the likelihood of this being a regular versus a one-off occurrence and consider to either withdraw from the service or spin the functions of as a new PTPMC member.

Delivering this service portfolio relies upon strong marketing to the potential clients and the creation of a team with excellent managerial and technical capabilities. The existing PTPMC Senior Management brings essential understanding of and links to the TVE Sector from previous long-term experience within the TVE Center. Additional key staff, possibly including international expertise, must be recruited/contracted during the first six months of establishment of PTPMC as a legal entity.

Within the broader UNDP/GEF Project, 8 pilot energy efficiency projects will be implemented to demonstrate the potential for energy savings and emissions reductions and related process and competitiveness improvements. These will be leveraged by PTPMC as a marketing tool, but establishment of PTPMC capabilities in the proposed new service fields would be greatly enhanced by PTPMC participation in the pilot project implementation phase and in the service contracts also outlined under the umbrella project; the projects require many of the services that PTPMC later hopes to provide for commercial customers. PTPMC should seek to capture additional support from UNIDO to undertake 'learning by doing' activities during the pilot phase.

The financial model base case suggests that PTPMC can potentially realize the objective of financial self-sustainability within four years. To achieve this:

- PTPMC should initially attract at least 100 members, 80% of which are commercial organisations paying a membership fee averaging USD 150 (differentiated between international and national members). Membership needs to grow at 10 % per annum
- PTPMC will be the sole supplier of services for a contract with UNIDO with exact Terms of Reference to be decided between UNIDO and PTPMC with value approximately US254, 000 in Year 1, US147, 000 in Year 2 and US66, 000 in Year 3. A draft version of this TOR is included in Annex 6.
- PTPMC manages the service contracts and the procurement of equipment on behalf of the TVEs
- PTPMC enters revenue share agreements with the PTPMC Members for energy savings and CDM of the pilot projects
- The 'opportunity portal' service which brokers projects between TVEs and PTPMC members and helps them to access RCF finance becomes a major revenue driver.

Achieving the sustainability objective is also heavily contingent therefore upon PTPMC:

- Developing a strong relationship with the Agricultural Bank of China to whom it will provide external management services for screening and delivering projects to the RCF pipeline
- Securing additional co-finance in the order of USD 2.5 to 3 .5 million in years 2 and 3 for RCF-type projects, and continued additional RCF investment into the future to finance increasing numbers of TVE EE projects.
- Addressing key staffing issues by recruiting additional high-level staff to manage delivery of the envisaged technical services

Failure to address these issues will prevent PTPMC from growing its commercial business and is likely to see the Secretariat playing a marginal role as a resource center providing information products to TVEs and

to its (limited) members.

3.03 Chapter three: Background

Township-Village Enterprises (TVEs) constitute a significant share of Chinese economic production and social welfare, accounting for over 30% of China's Gross Domestic Product, 47.3% of Chinese industry 'Added Value', and employing almost 130 million people. TVEs also contribute significantly to local and global environmental problems, accounting for a quarter of the entire Chinese demand for conventional energy sources. Within the TVE sector as a whole, brick manufacture, cement production, metal casting and coking industries account for over 58% of the TVE energy consumption, but contribute less than 14% of the TVEs added value. Furthermore, these four sub-sectors typically utilize 37 % to 57 % more energy per unit of production than is required for international state-of-the-art production.

In early 1999, UNDP/GEF approved the project 'Energy Conservation and Greenhouse Gas (GHG) Emissions Reduction in Chinese TVEs'. This project aims to reduce GHG emissions in China from the four TVE sectors previously mentioned by increasing the utilization of energy efficient technologies and products. The project removes key market, policy, technological, and financial barriers to the production, marketing and utilization of energy efficient technologies and products in these industries.

The project objectives include: a) creating institutional mechanisms for the removal of barriers acting against the more widespread introduction of energy efficiency measures at the national, county and enterprise level; b) establishing incentives and monitoring systems to strengthen existing regulatory programmes at the county level; c) building technical capacity for energy efficiency and product quality improvement in TVEs; d) creating access to commercial financing for TVEs in the four industries; e) commercializing the financing of TVE energy conservation projects; f) expanding the application of best practices for local regulatory reform to the national level.

One of the important catalysts for building technical capacity for energy efficiency and product quality improvements within the four industries, and an important supporting tool for the other objectives is the Production Technology and Product Marketing Consortium. PTPMC will consist of a Secretariat and member organizations. The PTPMC Secretariat is to be set up with initial support from the UNIDO project to develop the supply and demand for business development services and equipment for industrial TVEs in the four sub-sectors.

The PTPMC will initially be composed of the following institutions and enterprises:

- Selected service institutions or centres on energy-efficient technology:
- Design unit and manufacturer of energy-efficient technology:
- Training centres:

- Information centres;
- Pre-selected enterprises for eight pilot demonstration projects.

The main function of PTPMC is to implement energy-efficiency projects and disseminate energy-efficient technologies to the TVEs. The design units and manufacturers of energy-efficient technology will provide technologies fit for the TVEs, and the service institutions or centers of energy-efficient technology will implement the energy-efficient projects. The training centers will be responsible for providing relevant training for the technicians and operating workers of TVEs, providing business administration training and competing experience for TVE managers, providing training on environmental protection laws and relevant national policies for the relevant TVE and local government personnel. The information centers will collect information on advanced energy-efficient technologies, product marketing, financing, national industry policies, and energy conservation and environment protection, for dissemination to the TVEs, local government and financing institutions.

In short, PTPMC will combine the development of a market for energy-efficient technology with the development of products for that market, and effectively promote the dissemination of energy-efficient technologies to Chinese TVEs.

However, PTPMC is envisaged as an independent economic entity that must become self-sufficient in order that it can continue to disseminate energy-efficient technologies to the TVEs, beyond the term of the UNIDO project support. This Business Plan establishes the structure, services and mechanisms by which PTPMC can achieve this objective.

3.04 Chapter four: Mission and strategic objectives

This chapter indicates the vision, mission, value, objective, strategies, goal and current status of PTPMC.

Vision

Our vision of PTPMC is one organization consisting of two complementary service groups, satisfying the needs of a broad range of clients including TVEs, energy related service providers and product manufacturers from China and internationally, business service providers (legal, training etc), the finance sector, Government of China and its ministries and international development agencies.

- PTPMCS Core Services group will provide a variety of services to the subscribing consortium members, notably project identification services and inward business development assistance (such as product promotion, advice on policy and business environment and intermediary support such as technical translation assistance). The core services group will also provide essential business development assistance (training, workshops and accreditation), energy efficiency project formulation and tender

evaluation and co-finance identification functions for Township and Village Enterprises from the key sub-sectors of brick making, cement production and metal casting, as well as coking production. The business development assistance may be provided on behalf of development agencies or concerned government departments, and in the longer term will be self-financing.

- PTPMCS Consulting Services group will be an independent private-sector focused group providing fee-for-service activities, such as energy audits for TVEs, project feasibility studies to determine whether projects qualify for international support such as the Clean Development Mechanism, pre and post project implementation due-diligence for TVEs and the finance sector, and policy support functions (e.g. resource assessments) for GoC and others, as well as product development cooperation with other PTPMC Members. Please note: It is intended that, during the Project Period, this group will provide technical support to the PTPMC Core Services Group and carry out only limited private sector work, where there is no conflict of interests with the members. After the Project Period, if conflicts of interest arise then PTPMC must weigh up the likelihood of this being a regular versus a one-off occurrence and consider to either withdraw from the service or spin the functions of as a new PTPMC member.

In the longer term, these services will be extended beyond the four sub-sectors to enterprises from the State-Ownership sector, and small and medium-sized businesses. Furthermore these services may expand beyond energy efficiency to include other environmental management issues such as water, waste etc.

We expect the Consortium as a whole to consist of all the main international (including Chinese) energy sector service companies and many key product manufacturers and suppliers. In the near term (to 2005) there will be in the order of 200 PTPMC members, rising towards 500 members in ten years' time. Approximately 80% will be fee-paying via an annual subscription fee, the remaining associate members maintaining a 'watching brief' but receiving slightly less direct membership benefits.

Mission

To provide business development assistance to Township and Village Enterprises (TVEs) and facilitate relevant national and international product/service providers to target TVEs, and thereby to promote and assist implementation of energy efficiency best practices in Chinese TVEs initially and thereafter the broader Chinese economy.

Values

PTPMC is envisaged as an independent commercial venture, but with a charter that reflects its strong commitment to promoting energy efficiency best practices. The Organization will provide a sound, professional service for its clients, based on impartiality and adherence to International best practices. In all

cases it will operate with due respect for the natural environment.

Objectives

Reflecting the priorities of the UNIDO Energy Conservation and GHG Emissions Reduction in Chinese TVEs Project, PTPMC has the following objectives:

- To support investigation and implementation of energy efficiency measures within TVEs, notably within the Brick-making, Cement, Coking and Metal-casting sectors
- To improve the long-term business management skills of its clients within the TVE industry and thereby promote greater recognition of the long-term economic and environmental value of implementing energy efficiency measures
- To identify needs for new energy efficiency measures and/or technologies among TVEs, and assist their development in co-operation with PTPMC Members from the energy efficiency industry.
- To support and facilitate national and international PTPMC members to target the TVE sector effectively

Strategies

PTPMC (Secretariat's) broad strategy is to establish itself as the commercial hub of activity to bring energy efficiency, production process and business development improvements to the identified TVE sectors by facilitating service flows between the key stakeholders.

PTPMC will aggressively market its services to the identified stakeholder groups, drawing fees - either simple fee for service or via value-share arrangements - from the facilitation services it provides for the various stakeholders.

Delivering this service portfolio relies upon the creation of a team with excellent managerial and technical capabilities. Key staff, possibly including international expertise, will be recruited during the first six months of establishment of PTPMC as a legal entity. Appropriate staff will have a detailed understanding of the TVE sector and awareness of social and economic development priorities - including specific regional issues; detailed knowledge of relevant international energy efficiency initiatives and their application for broader business development purposes within the identified TVE sectors; strong capacity for evaluating customers' needs and identifying appropriate responses to these, together with financial evaluation capacity; excellent marketing skills; well-developed understanding of the Chinese legal and regulatory framework.

- Its infancy and gradually remove or spin-off these capabilities when the market is established. PTPMC

needs to evaluate where conflicts of interest arise and avoid them where practicable.

Goals

Short-term goals (Remainder of UNIDO Project i.e. to 2004)

- Break even by 2004 and in a good position to introduce strategic investor for post-project growth
- Core staff of 11-13 employees across the three main groups – corporate executive, core service group and PTPMC consulting – recruited and trained to international standards
- Over 50 TVE's received business development assistance
- 8 pilot projects underway successfully and contracts in place to support PTPMC future revenue and revenue secured in service fees
- Over 120 members signed up
- Member services to top US120,000 in 2004
- Secured additional financing of US2.5m for RCF
- Secured 1 CDM projects from 8 initial projects
- Brokered energy savings contracts for each of the Pilot Projects
- Secured recognition for in-house quality, human resource and environmental management systems

Medium-term (2004-2008)

- Operating profit Margin of over 58% on revenues of over US1.3m per annum as the opportunity portal, RCF services, member services and CDM/Energy savings revenue build up
- Brokered over 50 EE projects, and running at about 13 projects per year
- Over 150 members
- Business development assistance being brokered to over 100 TVE's per annum
- Secured financing for RCF so that capital employed tops US37.5m
- Core staff now expanded to over 25 with additional senior recruits to increase Human Resources and Legal roles and also to increase the number of senior technical staff from 2 to four.
- Begun to dividend retained profit to shareholders and to use the profit to promote energy efficiency to a broader audience, even potentially seed financing innovative technology providers or sponsoring some projects directly
- Expanded project scope into at least one new technology field and to one new market/customer group

Long-term (2008+)

- Continued business development
- Potential Overseas expansion
- Secured recognition for efforts in the past ten years
- Within ten years, revenue to have topped US2.5m per annum, operating profits of over US1.7m, staff employed to be over 40

Current Status

PTPMC has been established with key shareholders IE Energy and Environmental Protection Company and ZhongNong Company and is called Hongyuan Energy And Environmental Protection Company Limited, with registered address at 41 Maizidian Street, Chaoyang District, Beijing, China 100026 (tel: +86 (0) 10 65929549, fax: +86 (0) 10 65929549, website: www.ptpmc.com)

Key staffs have been recruited:

- Ms Yao Xiangjun, President
- Mr Wang Hai, General Manager

as well as others who have transferred from the PTPMC secretariat who's salaries are supported by UNIDO until the end of 2004 and key administration staff. Offices have been set up and a website and mail server developed.

3.05 Chapter five: PTPMC service

This chapter is written for the foundation measures during and after the project period, which includes:

Foundation measures during the Project Period

During the Project Period, PTPMC has a range of foundation services it can perform and thereby build its internal capacity to be self-sustaining after the end of the Project Period.

1. Business management support / business development assistance to help TVEs to adopt an environmental / quality management approach and long-term strategic investment approach to their business operations. This will stimulate demand among the TVEs for the services offered by the PTPMC members (energy/environmental service providers). The detailed descriptions for some of these services are outlined in Annex 1 in terms of customer definition for the service, the service to be provided, the delivery mechanism for the service, the controls required, the income route, the internal needs to deliver the service, the costs incurred and the success factors for the service.

- Business management workshops / seminars / tutorials, paid for or supported by UNIDO (and other agencies to be identified)
- Training for TVEs in how to develop bankable projects and use the services offered by PTPMC to tap into domestic and international service providers and sources of funds for their projects, including via the RCF
- This is catered for in part by the Regulatory Reform service group, Market and Management Service Group and Finance Management Service Group contracts in the UNIDO Project.

2. Project Management of 8 UNIDO demonstration projects

The 8 pilot projects could provide ‘experience’ (training) for staff on what will become several of PTPMCS core functions. Furthermore they provide the initial demand for the PTPMC Opportunity portal, Energy Service Company service and also the Clean Development Mechanism services (via the Engineering Service Group contracts and PTPMC structuring the pilot projects accordingly), provided that PTPMCS can secure an equivalent service fee on the contract value.

In discussions with PTPMC, the Project Management Office, Hong Yuan Company and UNIDO a draft Terms of Reference for what PTPMC could contractually do as foundation measures has been developed – see Annex 6. This has been developed in line with the principles and budget lines contained in the Project Document and is used as the basis for “learning by doing” by PTPMC in preparation for its sustainable operation from Year 3.

Nevertheless, these foundation measures alone are unlikely to be adequate for growth of the PTPMC business. Rather this will need rapid parallel development of similar services to other TVEs and some additional contract work to supplement income.

Growth Services

3. PTPMC Members services

- Identification of new energy efficiency products or services (niche opportunities) to be developed in association with PTPMC members
- ‘Finders’ service for equipment suppliers (PTPMC Members). *This is effectively built in to the PTPMC Membership fee. To be effective this needs to have RCF only approve loans to PTPMC Members (i.e. one eligibility criterion for RCF funding is that work is undertaken by PTPMC member. This allows PTPMC to define ‘quality’ terms in membership requirements.*

- Finders service for overseas investors (Investment brokers)
- Other services for Members ('shop-window', broker service)
- Other services (e.g. training videos, best practice / business practice case-studies and fact sheets, website, etc.)

-

4. Interaction with the Revolving Capital Fund

- Project design assistance for TVEs – provision of advice to TVEs on current international best practice, assistance with funding applications. Also to include energy audits leading to evaluation / prioritisation of energy efficiency measures. Preparation of TORs for TVE Energy Efficiency Projects
- Project implementation assistance service to RCF (i.e. ABC) – PTPMC Sec undertakes due-diligence of projects submitted for funding. Approves draw-downs and 'loan' disbursements.

5. Other Consultancy Services

PTPMC is well positioned to provide a range of consulting services to government agencies, private sector firms, and international organizations. These can include project preparation support and project pipeline development for organizations like the World Bank, Asian Development Bank, UN and others; policy impact studies for government agencies; and conference and event planning for others, etc. Care will need to be exercised to avoid conflict of interest situations.

3.06 Chapter six: Market profile

This chapter consists of market analysis, competition and customer analysis for the PTPMC.

And the details are listed as follows:

Market Analysis

Although PTPMC is offering services to several stakeholder groups as outlined in the strategy overview (Section 0), the ultimate driver for PTPMC services is the latent demand within the TVE sector to improve competitiveness and profitability. It is evident that the gap between TVE energy consumption and international state-of-art (and indeed the gap between TVE and local state-of-art) presents considerable scope for energy savings.

Estimates of the number of TVE's per sector have been provided by the CTA and the Bureau of Township Enterprises. There is some uncertainty surrounding precise figures, but in summary it appears that the minimum number of TVEs per sector are:

- Brick Making 60-80,000
- Cement 3800
- Steel 6000
- Coking 800

Based on a coal price of 112 RMB/tonne, the value of these energy savings - if international state of the art practices are introduced within the TVE sector - range on average from 16500 RMB /yr in the metal casting sector to 23700 RMB /yr in the brick sector, 263000RMB/Yr in the cement sector and an estimated 2 million RMB / yr in the coking sector.

The value of savings within the two largest sectors (metal casting and brick making) on first inspection seem rather small. Ideally, it would be useful to undertake a 'cherry picking' analysis through a sub-sector segmentation of energy expenditure and divergence from international best practice as % of turnover – to identify where can 'easy' savings be made. However, data on energy expenditure by TVE sectors is apparently not available, and certainly further segmentation data within sectors does not exist. (This suggests that the marketing plan for PTPMC is crucial to its success as there are few existing multipliers.)

In fact, the financial model itself refers to the potential for PTPMC to realise revenue from contracts replicating specific energy efficiency measure as determined under Phase I of the Energy Efficiency & Greenhouse Gas Emission Reduction in Chinese TVEs project; some analysis was made of the energy savings and CO₂ emissions abatement arising from the implementation of various process and technology improvements in the four target TVE sectors.

The financial model scenarios assume that only a small proportion of the replication potential will actually develop into realisable projects (under the aggressive scenario this equates to 7.5% of the replication units - other scenarios assume lower project realisation levels). Clearly the replication potential does not approach the upper limit of available TVEs, but further investigation is required to validate both the likely uptake of projects within the TVE sector and the share of project contract value that may be realised by PTPMC.

It must also be emphasised that the *process* improvements identified within the Phase 1 reports invariably resulted in additional value to the TVE other than simple energy savings. Internal Rates of Return were in the order of 17 to 19% for the brick and cement sectors, and up to almost 36% in the coke sector, though for the casting sector the IRR tended to be slightly under 12%. The PTPMC financial model only draws revenue from the energy savings and related emissions reduction value through the Clean Development Mechanism, NOT from the overall process value.

It should also be acknowledged that PTPMC knowledge will be transferable to projects in the State-Owned-Enterprises sector and to SMEs from these same industry groups. The underlying Energy Efficiency principles of PTPMC may also be translated to other industrial sectors in the longer term and could be expanded with the recruitment of additional appropriately qualified staff to include other environmental / resource management aspects (e.g. water, waste, etc.). However, these possibilities are not considered for the purposes of this business plan.

Competition

The apparent losers, should PTPMC succeed in assisting TVEs to reduce their energy consumption, are the energy suppliers, particularly the coal industry. Nevertheless, in the

short to medium-term at least it is unlikely that PTPMC alone will have such an impact on the sector as to warrant or elicit a targeted response from the traditional energy suppliers. The general rate of development in China is likely to see their 'loss' of custom absorbed elsewhere.

The main competition in respect of client base and potentially also sources of funds are existing multipliers e.g. trade associations, trading companies, other donor projects and existing green capital funds that might compete with PTPMC for their position as the route to TVE's. A key potential competitor (or useful partner) is the Green Capital Environment Investment Management Company (www.greencapital-eimc.com) that has access to USD 1Bn in funds for Environmental projects. This fund recognises that capacity building must go in tandem with financing and is therefore setting up a similar range of services to PTPMC. PTPMC's advantage is likely to be that it is clearly focused on a specific industry sector and it has excellent links to key representative bodies for its market group, so should be in a strong position to accurately focus its marketing activities. Additionally, given the size of Green Capital's investment fund, it may have less interest in the relatively small loans (typically in the order of USD 800,000) that PTPMC is targeting. Indeed, PTPMC should investigate possibilities of servicing Green Capital through identification of larger investment opportunities or through presenting a bundled portfolio of projects for investment.

Other potential partners/competitors include organisations like Centre for Environmental Sustainable Technology Transfer under the administrative centre for China's Agenda 21 (CESTT). This is an existing not for profit organisation that is funded by Ministry of Science and Technology (MOST) and is attracting funds from the likes of Asian Development Bank (ADB) to look at technology transfer and CDM for small and medium size enterprises like TVEs. This reduces PTPMC's ability to tap the same source for funds. CESTT is also producing a lot of energy efficiency literature that PTPMC could leverage.

Customers/Users

Four main customer groups have been identified in the strategy and services descriptions

above.

TVEs

The 4 identified TVE Sectors provide the major justification for PTPMC operation and will eventually be the ‘bait’ for attracting other customer groups to PTPMC.

The potential TVE customer ‘pool’ has been described in section 0. Initially, though, uptake by this group is likely to be small and will require a strong marketing commitment and development of good links with TVE representative bodies to generate interest in PTPMC’s services. In order to attract TVE interest, PTPMC must effectively present the potential business development and profitability case for long-term investment in energy efficiency measures, highlight the low risk to TVE’s, and demonstrate that it can deliver access to low-cost finance for improving competitive edge.

PTPMC will also need to adapt the services it offers to the types of TVE customers it is dealing with, for instance by region and size of TVE. In entrepreneurial provinces like Guangdong, the services required are more to understand the potential opportunities that new technologies or products offer as TVE owners can usually access sufficient “friends and family” type financing. Whereas in Shanxi it is access to funds that TVE owners require, as they already understand coking technology and their market. The experience of the current PTPMC team is sufficient to understand how to match the PTPMC services to the TVEs.

Suppliers of Energy Efficient Products and Services (PTPMC Members)

Although the TVEs are an important customer for PTPMC, it is actually the Members, which provide the stable revenue platform upon which PTPMC’s sustainability will be founded. Membership fees provide a solid annual base income, while in the medium to longer term, services to Members such as inward investment advice and new product identification are expected to be important earners for the Secretariat. It is critical therefore that PTPMC is able

to transmit to potential members the value of Membership; the pilot projects will be the main mechanism for establishing PTPMC's reputation as a portal to valuable new business opportunities.

3.07 Chapter seven: Marketing & promotion strategies

Many of PTPMCS services are reliant upon rather aggressive marketing to TVE's to the potential Consortium Members, to Banks and other financial institutions. This is an urgent need, the staffing implications for which have not yet been catered for within the UNIDO funded positions. PTPMC may consider seconding staff from an appropriate international organization to assist this initial establishment function.

Marketing to PTPMC Members

Marketing information to attract potential members to join PTPMC will emphasise the benefits of Participation in the Consortium:

- Inexpensive, low-risk access to notification of potential product and service contracts worth typically in the order of USD 1 million – opportunities that are **only** open to PTPMC Members.
- Real business development oriented service – the Secretariat will only pull-forward projects with a strong chance of proceeding to the implementation phase.
- PTPMC provides recourse to low-cost project finance, which overcomes one of the major barriers to implementation.
- Professional, (to be) quality accredited approach to business development.
- Access to a wide customer base through government-supported enterprise centres.
- Inclusion in service providers listing on PTPMC website.
- Effective in-country representation (for international members).

- Information service providing key information critical for EE providers doing business in China.

Until PTPMC has a website up and running the main route to market to these potential members will be direct marketing, managed by the National Marketing Manager and International Marketing Director. This will require the following marketing material to be created:

- Letter of introduction to send to prospective members
- Physical and electronic introductory brochure to PTPMC in English and Chinese outlining its origins, purpose, value proposition to its customers, value proposition to being a member and contact details
- Membership form and account for receiving membership dues
- Database to track progress of obtaining members (modeled on the existing database supplied with this business plan)

During the project period, a key bait for members to join PTPMC will be the 8 pilot projects and the service group contracts. These should be leveraged for maximum effect.

It is proposed that an annual yearbook is created towards the end of Year 1 for which members pay additional fees to advertise and that regular e-newsletters are sent out to both members and prospective members.

PTPMC should also forge alliances with similar multipliers e.g. Center for Environmentally Sound Technology Transfer (CESTT), and International Technology Transfer Center (ITTC), Tsinghua University, who may jointly host/co-sponsor workshops to attract national and international members.

Marketing to TVEs and other customers

Marketing to the 70-90,000 potential TVE clients and then after the project, the subsequent expansion of the business scope to include other customers such as SMEs and other sectors will require considerable effort. This effort must be targeted to be effective. Furthermore the

channels to market provided by stakeholders, the Agricultural Bank of China (national and local branches) and the Ministry of Agriculture (in particular the national and provincial Chinese Township Enterprise Development Center and Scientific & Educational Centers) must be leveraged fully. This marketing effort will be carried out during the project period by the National Marketing/TVE manager who will then build up his team as business volume grows.

The TVE market, although large, is not a mass market as every TVEs situation will be slightly different and so the equipment and services are typically sold as projects and not products. Therefore this suggests more of an “integrated account and project management” marketing strategy rather than a product-push approach to engage with TVEs. Having said this it is critical for PTPMC to leverage technology to ensure it can get “service provision with product economics, i.e. repeatability and easy management.

Marketing to RCF and other Lenders

The key to engaging the traditionally risk-averse finance sector – aside from demonstrating value for money (i.e. to be able to deliver a service at less cost than could be achieved in-house) - must be to engender confidence in PTPMC’s ability to deliver robust technical and financial analysis (i.e. good track-record).

Clearly as PTPMC as an organization has no such track record at the present time, confidence in its ability to deliver such services is dependent upon the capability and track record of its staff. It is essential therefore that key recruitments bring such capability into the organization. This may imply recruitment of one or more international staff if such capacity is not available locally.

In terms of ‘selling’ relevant services to the lending sector, direct marketing is expected to be by far the most effective tool, i.e. the development of good personal contacts within lending

sector. This function will largely be the responsibility of the Director and RCF Manager, though the key marketing staff and technical directors will also have a role.

Beyond the ABC – looking to expand this service to other lenders and hopefully expand the RCF or identify co-finance - PTPMC needs to identify potential new business contacts within other finance organizations. A database of lenders, relevant staff, lending criteria etc. should be built-up and prioritized for contacting. Prioritisation criteria should include previous investments in TVE sector or energy / environment focus or small-scale loans (1-10mUSD). Initial contact should be made by telephone to arrange face-to-face appointments.

Tailored information products, i.e. introducing possible services and highlighting relevant previous experience of PTPMC staff, should also be developed. (The same information should be included on the PTPMC website, though it is not expected that many leads will result from this route).

Marketing to Donors and other agencies

As with the finance sector, the development of good personal contacts within the development / donor sector and relevant State, Province and Local government departments is likely to be the most effective marketing approach. This should include (literal) door-knocking, extension of invitations to visit PTPMC Office and Pilot projects when implemented. Again a prioritized list of potential clients should be established, based on China focus, assistance to SMEs, energy / environment focus, and calls should be made to identified contacts to set up meetings.

Although many relevant agencies have offices established in China, it is highly likely that some overseas travel may be required, for instance to ADB in Philippines, WB, UNDP and GEF in USA, AUSAID in Australia, JICA in Japan. etc. It would be beneficial for one or more key staff to participate in relevant events such as WB Energy Week.

PTPMC should also aim to get registered with appropriate Agencies' Consultants Services databases such as ADB DACON register to simplify the recruitment process.

Again, tailored information products, i.e. introducing possible services and highlighting relevant previous experience of PTPMC staff, should also be developed. (The same information should be included on the PTPMC website, though it is not expected that many leads will result from this route).

Website

In Year 1 it is proposed to create a content based website to front end the database designed during the business planning phase as an important 24x7 channel to the market. This database and website is described in Annex 4. This website will provide content to entice potential members to join (sign up to be fulfilled off-line) and as a means for existing members to post their details to the site and any case studies.

In Year 2 it is proposed to expand this content and membership capture website into a more dynamic site with transactional capabilities – the “opportunity portal”. The key element of this will be to implement a business-to-business opportunity portal, with associated workflows and internationally accepted data standards (e.g. XML) to ensure that it can smoothly integrate with the procurements systems of the TVEs and the contract/financial/project reporting systems of the equipment/service providers. The rationale for such a website is to provide a way to streamline project development and thereby capture value from the contracts being signed. Furthermore the website will be automated so membership payments can be captured on-line. Based on the experience of Year 1, additional community building features could also be implemented such as Bulletin Boards and Members project collaboration areas to improve the utility and “stickiness” of the site to its users. Finally polling facilities, data mining and web monitoring will be incorporated into the site to enable the site to be improved based on users usage habits and requirements.

3.08 Chapter eight: management and institutional structure

Management

Currently the PTPMC Secretariat has four key staff paid for by the UNIDO project:

- PTPMC Director, Mme Wang Guiling, who has many years experience from the TVE sector
- PTPMC Contracts Manager, Mr Song Dongfeng, who is fluent in English and experience in managing contracts for international and national companies
- PTPMC Chief Information Officer, Ms Liu Hui, who has good cross sectoral experience and is in charge of the database
- PTPMC Administrative Assistant, Ms Jing Jing, provides administrative support to the team.

Additionally PTPMC has recruited several key staff:

- Ms Yao Xiangjun – President;
- Mr Wang Hai – General Manager; and
- Additional support staff e.g. for administration and bookkeeping.

It is clear that PTPMC's senior management has a strong understanding of the needs of the TVE Sector, coming from the Township Enterprises Center established under the MoA. This should prove useful in developing the key routes to market for the TVEs – via the TVE Enterprise Development Centers and Scientific Educational Centers.

It is of critical importance to the success of PTPMC as a commercial venture and to realization of the base case business plan that additional staff with the requisite qualifications are recruited as a matter of urgency (once funding shortfall has been addressed).

PTPMC should consider hiring a local full time international hire (possibly an experienced graduate or intern from the Tsinghua/EU Managers program) or consultant to work with them in Year 1 and 2 on a part time basis to ensure that they can reach international best practice. This is necessary to build PTPMC's brand and will be the easiest way to facilitate adoption of best practice and forge links with the international energy efficiency community

Structure

The organisational structure of PTPMC is represented in the Organogram,

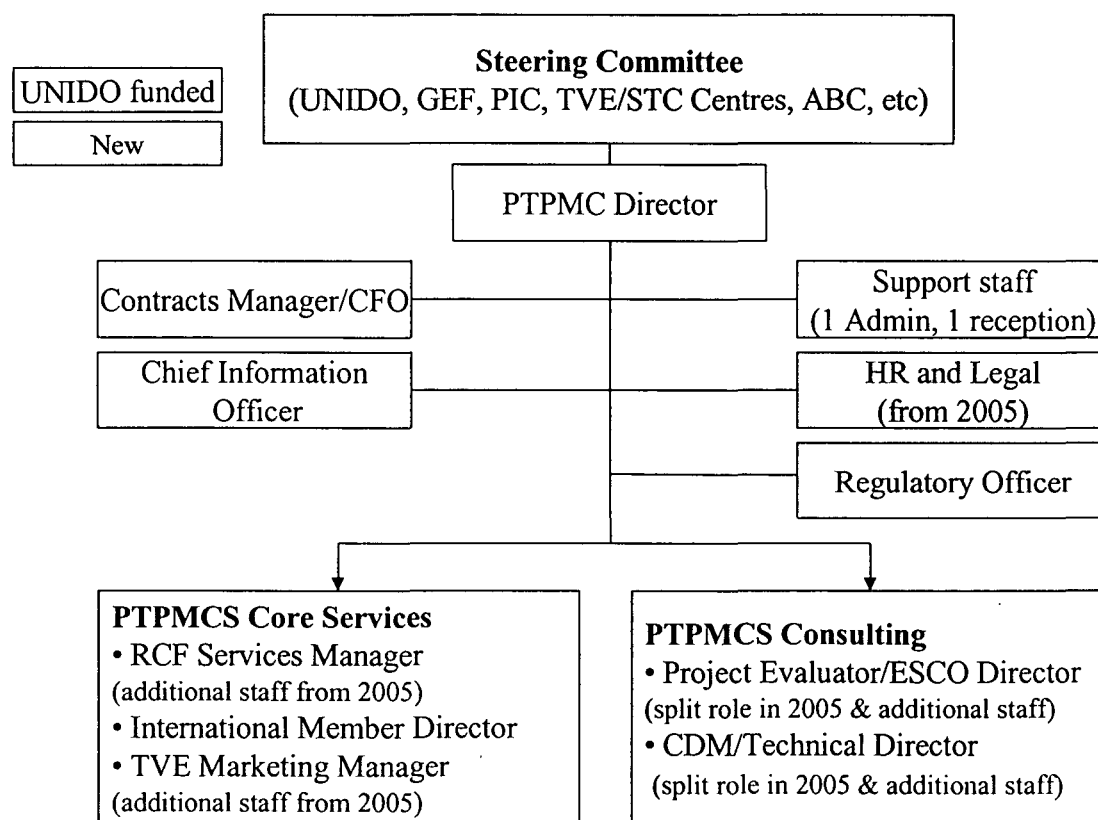


Figure 1: PTPMC Structural Organogram

During the Project period, it is anticipated that the PTPMCS Consulting should be viewed as Technical Support.

3.09 Chapter nine: Operational administration

General Staffing levels and costs

The initial staff requirements for 2003/4 are as follows:

Corporate Office:

One Director (Total cost of employment US2000 per month), Chief Information Officer (US1500 per month), Contracts Manager (US1500 per month) and One Personal Assistant (US500 per month). These are currently paid for under the UNIDO project. It is assumed that the current Contracts Officer can also double up as accountant to the office.

In addition one more admin staff at US500 per month will be recruited to the Corporate Office.

Core services and PTPMC Consulting teams

In addition to the above the following key foundation staff members will be recruited

For the Core Services team, one RCF Services Manager (US2000 per month) and one TVE marketing Director (US1000 per month). This team will report to the PTPMC Director.

For the PTPMC Consulting team, One Projects/Energy Efficiency Director (US2000 per month) will be recruited as technical support. UNIDO propose the main focus for Year 1 should be marketing and contracts management with external technical support provided by UNIDO and short-term technical consultants (budget line 11-050).

The ideal candidates for these roles should be managers who can work effectively alone and develop business but who can also recruit and develop their own teams as the business grows. TORS are included in Annex 2 for all the key senior recruits.

The total Year 1 staff costs will be around US66, 000 with an additional support of US53, 600 for UNIDO contracted staff (this assumes that staff are recruited in a phased manner as suggested in the TORs)

Subsequent staffing level growth

Corporate Executive Office

It is anticipated that a HR Manager and Chief Legal Officer will be required by 2005/6 (US2000 per month)

Core Services and PTPMC Consulting

The ten year growth in employees can be seen in the Table below. The bulk of the recruits are to support the RCF services and Engineers to support PTPMC Consulting.

	2004	2005	2006	2007	2008
Number of Employees	8	11	14	20	24
Corporate	5	5	7	8	8
Core Svcs	2	5	5	7	9
Consulting	1	1	2	5	7

It is anticipated that the per-annum staff costs will increase by 5%.

Offices & equipment needs and costs

It is expected that the office will initially be sized for 15 people and be 150m² – this is the size of the current office and the costs of which are incurred by the Chinese government during the project period. Additionally it is assumed that the key staff will receive laptops (at US2500 per laptop) and the rest will receive desktops (at US1500 per laptop). Furthermore the office will need to be kitted out (at a cost to PTPMC of no more than US3, 000).

3.010 Chapter ten: Financial assessment

Three scenarios for future operation of the PTPMC have been developed based on the assumptions as indicated in the Table in section 10.2. The base case model indicates that there is a slight cash flow deficiency in the early years but then PTPMC becomes profitable (highly so) in later years. Based on this model the high priority services that PTPMC should focus on are given in full document of the business plan.

3.011 Chapter eleven: Financial requirement

Finance already in place:

Salaries for: Director, Contract Officer, Information Management Officer, support staff

Equipment for PTPMC Secretariat (4pcs, ISDN, fax, printer, etc. 17k). Not office or running costs.

Capitalisation – RMB200, 000 (of which only RMB100, 000 is available for use)

Additional Immediate Needs

Additional

- Payments for services provided to UNIDO under the contractual arrangements laid out in the draft TOR (included in Annex 6).

There are venture capitalists operating in China today who would be keen to get involved with a company with the profile of PTPMC. This should be considered, if the shareholders cannot commit the required financing or donors cannot be found to fund specific projects.

Longer term financing needs

As a partnership based consortium, additional finance supports from multiple channels are necessary for PTPMC. There are number of the national and international financial agencies would be helpful for the establishment and operation of PTPMC, through directly finance or other support, such as:

- SETC and MoST SMEs development foundations;
- GEF/World Bank energy efficiency promotion program;
- International Advisory Fund sponsored by GEF and SANet which meets some of project sponsors' cost' of obtaining advice to explore energy efficiency projects
- EU energy efficiency, CDM and renewable energy program;
- New venture for clean production investment, financed by USA foundations;
- Potential CDM projects implementation, through ADB, UNF and others.

Therefore, PTPMC should be attractive to other investors.

3.012 Chapter twelve: Implementation

See the full document of the business plan.

3.013 Chapter thirteen: Conclusion

Foundation support from UNIDO, TVE, STC, aims to establish PTPMC as a mechanism for enabling energy efficiency projects within the Chinese TVE industry sub-sectors of Brick Making, Cement Production, Metal Casting and Coking.

This business plan has presented a financial model and implementation strategy aimed at maintaining PTPMC as the commercial hub of TVE Energy Efficiency product and service flows beyond the foundation support period, based on services that it can provide to a range of customers, notably the target sector TVEs, energy related service providers and product manufacturers from China and internationally, business service providers, the finance sector, Government of China and its ministries and international development agencies.

SWOT Summary

In summary a SWOT analysis of the potential business identifies the following issues:

- Strengths:
 - The business has the backing of UNIDO and the Chinese Ministry of Agriculture, and already benefits from substantial start-up funding to cover several key staff salaries and office establishment costs
 - Senior Management has a detailed understanding of the target client group (the TVEs) and excellent links to the TVE sector via TVE Bureaux and Science and Technology Education Centres. These will be leveraged by PTPMC to maximise the marketing value and stimulate demand within the potential TVE client base, which in turn justifies Members participation in the Consortium
 - The eight pilot projects are a good inducement with which to build the membership base
 - The business aims to minimise the risks to customers both on the supply and demand sides (by identifying probable projects for the suppliers and building in

quality requirements for the buyers). This distinguishes PTPMC from most other business development services.

- Weaknesses
 - Success is strongly reliant upon performance of the management team. The existing staff do not have the technical capacity to deliver the range of services provided. This will be addressed by recruitment of key staff early in the business.
 - The TVEs do not yet know that they need PTPMC's services. The success of the TVE marketing model relies on good performance of external stakeholders – provincial and county government, ABC etc. – over which PTPMC has little control. PTPMC Senior Management will be critical in ensuring continued good cooperation with these organisations
 - There is a need for additional finance to overcome cash flow during Yr1 & 2. The Senior Management will press the case for additional UNIDO support for learning by doing activities during the pilot project phase to alleviate this problem.
 - The strong coupling with the RCF, which is seen as an important inducement for TVEs, is not yet defined and additional co-finance for RCF needs to be identified for the business model to work. Senior Management, including staff as yet to be appointed, need to lobby hard for this from the outset.
- Opportunities
 - The main opportunity is clearly the huge potential demand within the TVE sector to implement cost-effective measures that will reduce costs and/or improve the competitiveness for small companies. The potential for PTPMC to provide access to finance for such initiatives will be an additional attraction for TVEs. The consortium will use its knowledge of and links to the TVE sector to maximise exposure to potential clients.
 - There is very strong interest from international industry to doing business in China. For businesses it is seen as a rapidly emerging economy offering tremendous potential new market for products and services, or for joint venture

cooperation or manufacturing relocation. PTPMC will harness this desire by providing a simple, low-cost, low-risk route to market

- For International Development Agencies and the Chinese Government the development potential is exciting, but requires careful management to meet development priorities in a sustainable manner. The significance of the TVE sector both to the Chinese economy and for the global environment offers PTPMC tremendous potential for developing policy support and project implementation services. The Secretariat will develop strong links with relevant IDAs and GoC ministries to harness this potential.
- The Clean Development Mechanism also presents an excellent opportunity for PTPMC, with various national governments and major multinationals seeking to offset emissions by implementing actions with a lower cost: benefit in other countries. PTPMC will position itself to take advantage of these opportunities through development of in-house CDM response capabilities.
- Threats
 - The biggest danger for PTPMC is that it will not respond aggressively enough to the opportunities and will fail to address the weaknesses presented above. If this is the case, existing and emerging multipliers may crowd PTPMC out of the market. PTPMC must leverage its strong position with TVE agencies, and differentiate the services that it provides to the TVE sector from those of the competition.

The route to commercial sustainability...

The financial model base case suggests that PTPMC can potentially realize the objective of financial self-sustainability within three years with the support provided from the contract with UNIDO – see Annex 6 for draft terms of reference. However this is dependent upon PTPMC:

- Addressing key staffing issues by recruiting additional high-level staff to manage delivery of the envisaged technical services
- Developing a strong relationship with the Agricultural Bank of China to whom it will provide external management services for screening and delivering projects to the RCF pipeline
- Securing additional co-finance in the order of USD 2.5 to 3 .5 million in years 2 and 3 for RCF-type projects, and continued additional RCF investment into the future to finance increasing numbers of TVE EE projects.

Failure to address these issues will prevent PTPMC from growing its commercial business and is likely to see the Secretariat playing a marginal role as a resource center providing information products to TVEs and to its (limited) members.

3.014 Chapter Fourteen to Eighteen: Annexes

In the full document of the business plan, several annexes are included, which are:

- ♦ Detailed Description of PTPMC Services;
- ♦ Existing Staff CVs and Year 1 staff TORs;
- ♦ List of potential PTPMC members;
- ♦ Business Model Summary;
- ♦ Description of PTPMC Capacity Building Programme; and
- ♦ Draft Terms of Reference for PTPMC contract with UNIDO

A full document of the business plan is attached in the final report.

4.00 Terms of reference for PTPMC support measures

The major contents of terms of reference for PTPMC support measures are as following:

4.01 Overall Project Background

Township-Village Enterprises (TVEs) constitute a significant share of Chinese economic production and social welfare. TVEs also contribute significantly to local and global environmental problems. In the early part of 1999, UNDP/GEF approved a project titled “Energy Conservation and GHG Emissions Reduction in Chinese TVEs – Phase II”. This project is to reduce GHG emissions in China from the TVE sector by increasing the utilization of energy efficient technologies and products in the brick, cement, metal casting and coking sectors. The project removes key market, policy, technological, and financial barriers to the production, marketing and utilization of energy efficient technologies and products in these industries.

Project objectives include: a) creating institutional mechanisms for barrier removal at the national, county and enterprise level; b) establishing incentives and monitoring systems to strengthen existing regulatory programs at the county level; c) building technical capacity for energy efficiency and product quality improvement in TVEs; d) creating access to commercial financing for TVE in the four industries; and e) commercialize the financing of TVE energy conservation projects and; f) expanding the application of best practices for local regulatory reform to the national level.

Establishment & sustainable operation of the Production Technology and Product Marketing Consortium (PTPMC) in China is one of the crucial tasks in the project. The current status of the setting up of PTPMC is:

- ✓ The PTPMC business plan has been drafted
- ✓ PTPMC is registered as a commercial entity with two initial shareholders (IE Energy and Environmental Protection Company and Zhongnong Company)

- ✓ PTPMC Secretariat has key staff and office resource to support the establishment of PTPMC
- ✓ PTPMC has other initial business opportunities that are currently under development, e.g. proposal for developing Clean Development Mechanism Projects in the TVE Sector.

It has been recognised by all stakeholders to the Project that it is crucial to provide foundation assistance to PTPMC via providing opportunities to carry out activities in support of the Project and thereby build its internal capabilities and reputation through “learning by doing” so that after two to three years of operation PTPMC can sustainably continue. Furthermore these activities should be carried out by suitably qualified staff of PTPMC on a contractual basis with performance linked payment. This was agreed at the meeting between all of the Project stakeholders on 21st May and it was further decided to structure this foundation support as a Contract between UNIDO and PTPMC under Budget Line 21 with a clear Terms of Reference determining the activities and deliverables. This Terms of Reference would be in addition to other previously agreed Project support for PTPMC, e.g. for purchasing IT hardware/software, provision of office space and on-going support of salary costs of the PTPMC Secretariat.

4.02 Objectives

The overall objectives for the activities outlined in this Terms of Reference are:

- To support the development of PTPMC as a sustainable operating company via supporting it to carry out additional “learning by doing” activities for the following Project subcontracts:
 - 21-100 Regulatory Reform Service Group Subcontract (Budget 410,000 US\$)
 - this will be subject to separate agreements between PIC and PTPMC
 - 21-200 Engineering Service Group Subcontracts (Budget 1,940,000 US\$)

- 21-300 Marketing management Service Group Subcontract (Budget 770,000 US\$)
- 21-400 Finance management Service Group Subcontract (Budget 600,000 US\$)
- To ensure PTPMC can attract suitably qualified staff for it to build its reputation in the market and deliver the Projects broader objectives
- To ensure close linkages and support services between PTPMC and the Revolving Capital Fund and the Policy Implementation Committee (PIC) and the local counterparts (LPICs).
- To assist PTPMC to expand its membership base so that PTPMC can build its revenue from other services during the foundation period
- To give PTPMC some revenue certainty in the short term (first two years) and assist it to migrate to full performance based bidding and commercial operation in three years time
- To capture best practices from the project implementation and use these to highlight the Projects outcomes and as case studies to showcase PTPMC's reputation and experience

4.03 Proposed scope of work

It is proposed that the following scope of work is carried out by PTPMC to meet the objectives stated above:

Task 1. To provide services in support of delivery of the 21-200 Engineering Service Group Subcontracts

Task 2. To provide services in support of delivery of the 21-300 Marketing Management Group Contract

Task 3. To provide services in support of delivery of the 21-400 Finance Management Group Contract

All the tasks listed above have been designed as annual based activities and the details see the attachment three.

4.04 Anticipated Schedule and Reporting Requirements

Within one month of contract signing PTPMC will provide an Inception Report which includes a detailed 6 month and Year 1 work plan as well as an overall 3 year work plan for the Activities of the Project and agree with the PMO the key performance indicators for the Project and how they will be used to establish actual performance. Every 6 months these plans will be updated.

It is anticipated that there will also be regular 3 monthly progress reports to be submitted to the contracting authority, together with monthly updates.

4.05 Estimated required inputs

It is estimated that the accomplishment of the above-listed tasks will require the following effort:

	PTPMC Effort	Other inputs
Task 1	33 man months	4 International flights, 71 national flights, 295 per diems. over 9 meetings, website for a total of US240,000
Task 2	7 man months	
Task 3	27 man months	
Total	At least 67 man months	

4.06 Coordination requirements and responsibilities of Parties

PTPMC will need to work closely with the key stakeholders in the Project namely, the PMO, UNDP, UNIDO, MoA and its relevant departments, Agricultural Bank of China. Overall coordination of the Project activities will remain with the Project Management Office.

4.07 Staffing Requirements

PTPMC should propose key staff that will support it to carry out the activities listed in this Terms of Reference and obtain “Statements of Availability” from them.

A Terms of Reference for each of the desired staff positions in PTPMC is included in Attachment 1, together with a preformed statement of availability, which is included as Attachment 2. Should a role take longer than anticipated to fill then a temporary consultant can be used to ensure Project delivery.

4.08 Estimated Support to PTPMC for the activities of this TOR from Project Budget Line 21

The estimated foundation support to PTPMC to carry out the activities above is as follows:

	Year 1 (US\$)	Year 2 (US\$)	Year 2 (US\$)
Task 1	108,040	94,910	66,250
Task 2	66,935	28,010	0
Task 3	79,630	23,620	0
Total cost to Project	254,605	146,540	66,250
Portion of this to	105,800	62,600	19,000

Energy Conservation & Greenhouse Gas Emission Reduction
In Chinese Township & Village Enterprises

support labor costs (i.e. excluding travel, workshops, per diems)	PTPMC			
Nature of Award	Grant contract to PTPMC	Grant contract to PTPMC, based on previous years performance	Open bidding for all contracts, including PTPMC grant	

PTPMC should meet all national and international traveling costs and per diems out of this amount. Furthermore this budget should include costs for inception meetings, internal working group meetings and seminars that PTPMC requires to carry out as part of its activities.

It is proposed that this support is invoiced on a monthly basis against clear reports and deliverables, with the first two months of each year paid upfront. PTPMC will be responsible for any tax or other liability in support of delivering this contract.

5.00 Attachments

5.01 Legal documents of PTPMC registration

5.02 Full document of PTPMC business plan (Final)

5.03 Terms of references PTPMC support measures

22864
(2 of 2)

Annex I

Legal Documents

of Production Technology and Product Marketing Consortium Registration

Annex I

Legal Documents

of Production Technology and Product Marketing Consortium Registration

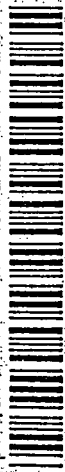
Contents

1	Copy of Certificate for Code of Organization/company/enterprise (signed and sealed duplicate)	1
2	Copy of Business License for Company/enterprise (signed and sealed duplicate)	2
3	Copy of Business License for Company/enterprise (original).....	3
4	Copy of Registration of State Tax (signed an sealed duplicate)	4
5	Copy of Registration of Local Tax (signed an sealed duplicate).....	5
6	Copy of Certificate for Permission of Bank Account Setting Up.....	6
7	Article of Beijing Hongyuan Environment and Energy Co., Ltd.	7
8	Certificate on of Capital Verification.....	13

中华人民共和国 组织机构代码证

(副本)

代码: 75215906-5



机构名称: 北京弘远环能科技有限公司

机构类型: 法人企业

地址: 北京市朝阳区麦子店街4-1号
808室

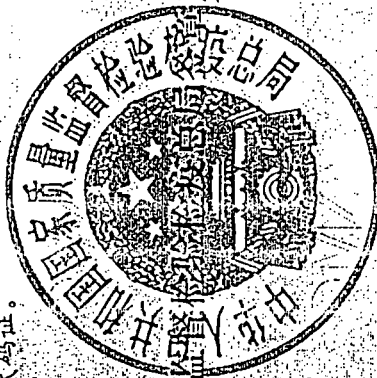
有效期: 2003年07月14日至2007年07月14日

发证单位: 北京市朝阳区质量技术监督局

登记号: 组管代110105054238-1

说明

1. 中华人民共和国组织机构代码是组织机构在中华人民共和国境内唯一的, 始终不变的法定代码标识, 《中华人民共和国组织机构代码证》是组织机构法定代码标识的凭证, 分正本和副本。
2. 《中华人民共和国组织机构代码证》不得出租、出借、冒用、转让、伪造、变造、非法买卖。
3. 《中华人民共和国组织机构代码证》登记项目发生变化时, 应向发证机关申请变更登记。
4. 各组织机构应当按照有关规定, 接受发证机关的年度检验。
5. 组织机构依法注销、撤销时, 应向原发证机关办理注销登记, 并交回全部代码证。



中华人民共和国
国家质量监督检验检疫总局

年检记录

年	月	日	年	月	日

NO.2003 1709486

每年3月至5月年检

企业法人营业执照

(副本)

注册号 1101051581957 (2-1)

名称 北京弘远环保科技有限公司

住所 北京市朝阳区麦子店街41号808室

法定代表人 姚向君

注册资本 10万元

企业类型 有限责任公司

经营范围

科技产品的技术开发、技术转让、技术培训、技术咨询、技术服务；市场调查；企业管理咨询；承办展览展示；组织文化艺术交流活动（不含演出）；会议服务；劳务服务。（未取得专项许可的项目除外）



说明

- 1.《企业法人营业执照》是企业取得企业法人资格和合法经营的凭证。
- 2.《企业法人营业执照》分正本和副本，正本和副本具有同等法律效力。营业执照正本应放在企业法人住所醒目的位置，企业法人可根据需要，向登记机关申请领取若干副本。
- 3.营业执照不得伪造、涂改、出租、出借、转让。除登记机关外，任何单位和个人均不得扣留、收缴和吊销。
- 4.企业法人应在核准登记的经营范围內从事经营活动。
- 5.企业法人登记注册事项发生变化时，应向原登记机关申请变更。
- 6.每年一月一日至四月三十日，登记机关对企业法人进行年度检验。
- 7.企业注销登记时，应交回营业执照正、副本，营业执照被登记后即自行失效。

企业法人年检情况

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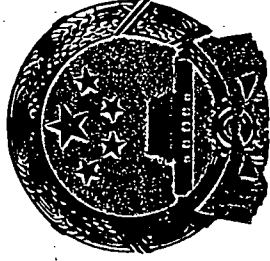


登记机关

2003年

营业期限 自 2003年07月08日至 2023年07月07日

成立日期 2003年07月08日



名称 北京弘远环能科技有限公司

住所 北京市朝阳区麦子店街41号808室

法定代表人 姚向君

注册资本 10万元

企业类型 有限责任公司

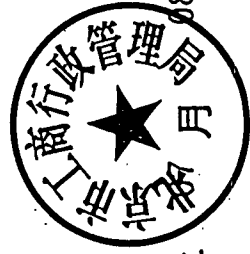
经营范围 技术转让、技术开发、技术咨询、技术服务、技术推广、技术培训、市场调查、企业形象策划、承办展览展示；组织文化艺术交流活动（不含演出）；会议服务；劳务服务。（未取得专项许可的项目除外）。

企业法人 营业执照

注册号 1101051581957

成立日期 2003年07月08日

登记机关



2003年

日

营业期限 自 2003年07月08日 至 2023年07月07日



税务计算机代码 0556534

税务登记证

(副本)

京字 110105752159065000

地税 号

发证机关



纳税人名称 姚向君

法定代表人 朝阳区麦子店街41号808室

地址 有限责任公司

登记注册类型

经营方式

经营范围 让技术培训技术咨询技术服务市场调查企业形象策划承办展览展示组织文化艺术交流活动策划会议服务
科技产品的技术开发

经营期限 长期

经营期限

证件有效期限

国家税务总局监制

开户许可证

人银户管证京字第 0191123 号

存款人名称 北京远通能源科技有限公司

银行帐号 651000411201001857

所有制性质 有限责任公司

经营范围 科技产品的技术开发

法人代表 姚向君

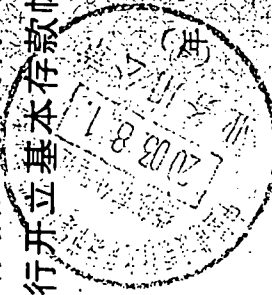
营业执照编号 110103158195

统一标识代码 7125906-5

经审查，该存款人符合开户条件，请
准予批准在我行开立基本存款帐户。

开户银行(盖章):

年 月 日



经中国人民银行审查同意，准予

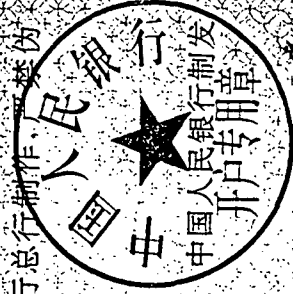
在 _____ 银行(信用社)



年 月 日

开户注意事项

- 一、单位、个体经济户和银行、信用社必须凭本证才能开立基本存款帐户。
- 二、本证分为正本和副本，正本发给开户单位，副本由开户银行存查。
- 三、存款人撤销基本存款帐户应缴回本证。
- 四、开户许可证由中国人民银行总行制作，禁止伪造、涂改和自行印制。



北京弘远环能科技有限公司

章 程

为适应社会主义市场经济的要求，发展生产力，依据《中华人民共和国公司法》（以下简称《公司法》）及有关法律、法规的规定，由爱意能源环保技术开发公司、中农科技发展有限公司二方共同出资，设立北京弘远环能科技有限公司，特制定本章程。

第一章 公司名称和住所

第一条 公司名称：北京弘远环能科技有限公司
（以下简称“公司”）

第二条 住 所：北京市朝阳区麦子店街 41 号 808 室

第二章 公司经营范围

第三条 公司经营范围：科技产品的技术开发、技术转让、技术咨询、技术培训、技术服务，市场调研、企业形象策划、承办展览展示、组织文化艺术交流活动、会议服务、劳务服务（经营范围以工商局核定为准）。

第三章 公司注册资本

第四条 公司注册资本：10 万元人民币。

公司增加或减少注册资本，必须召开股东会并由代表三分之二以上股东表决权的股东通过并作出决议。公司减少注册资本，还应当自作出决议之日起十日内通知债权人，并于三十日内在报纸上至少公告三次。公司变更注册资本依法向登记机关办理变更登记手续。

第四章 股东的姓名（或者名称）、出资方式、出资额

第五条 股东的姓名或者名称、出资方式及出资额如下：

股东姓名或者名称	出资方式	出资额(万元)
爱意能源环保技术开发公司	货币	5.5
中农科技发展有限公司	货币	4.5

第六条 公司成立后，应向股东签发出资证明书。

第五章 股东的权利和义务

第七条 股东享有如下权利：

- （一）参加或推选代表参加股东会并根据其出资额享有表决权；
- （二）了解公司经营状况和财务状况；
- （三）选举和被选举为董事会成员或监事；
- （四）依照法律、法规和公司章程的规定获取股利并转让；
- （五）优先购买其他股东转让的部分出资；

- (六) 优先购买公司新增的注册资本;
- (七) 公司终止后, 依法分得公司的剩余财产;
- (八) 股东有权查阅股东会会议记录和公司财务会议报告;
- (九) 国家法律规定的其他权利。

第八条 股东承担以下义务

- (一) 遵守公司章程;
- (二) 按期缴纳所认缴的出资;
- (三) 依其所认缴的出资额承担公司的债务;
- (四) 在公司办理登记注册手续后, 股东不得抽回投资。

第六章 股东转让出资的权利

第九条 股东之间可以相互转让其部分出资。

第十条 股东转让出资由股东会讨论通过, 股东向股东以外的人转让其出资时, 必须经全体股东同意。

第十一条 股东依法转让其出资后, 由公司将受让人的姓名、住所以及受让人的出资额记载于股东名册。

第七章 公司的机构及其产生办法、职权、议事规则

第十二条 股东会由全体股东组成, 是公司的权力机构, 行使下列职权:

- (一) 决定公司的经营方针和投资计划;
- (二) 选举和更换董事, 决定有关董事的报酬事项;
- (三) 选举和更换由股东代表出任的监事, 决定有关监事的报酬事项;
- (四) 审议批准董事会的报告;
- (五) 审议批准监事的报告;
- (六) 审议批准公司的年度财务预算方案、决算方案;
- (七) 审议批准公司的利润分配方案和弥补亏损的方案;
- (八) 对公司增加或减少注册资本作出决议;
- (九) 对发行公司债券作出决议;
- (十) 对股东向股东以外的人转让出资作出决议;
- (十一) 对公司合并、分立、变更公司形式、解散和清算等事项作决议;
- (十二) 修改公司章程。

第十三条 股东会的首次会议由出资最多的股东召集和主持。

第十四条 股东会会议由股东按照出资比例行使表决权。

第十五条 股东会会议分为定期会议和临时会议, 并应当于会议召开十五日以前通知全体股东。定期会议应每年召开一次, 临时会议由代表四分之一以上表决权的股东、董事长或者监事提议即召开。股东出席股东会议也可以书面委托他人参加股东会议行使委托书中载明的权力。

第十六条 股东会会议由董事会召集, 由董事长主持。董事长因特殊原因不能履行其职责时由董事长指定的其他董事主持。

第十七条 股东会会议应对所议事项作出决议, 决议由代表二分之一以上表决权的股东作出

决议，对公司增加或减少注册资本、分立、合并、解散或者变更公司形式、修改公司章程所作出的决议，应由代表三分之二以上股东表决权的股东一致通过。股东会应当对所议事项的决定作出会议记录，出席会议的股东应当在会议记录上签名。

第十八条 公司设董事会，成员为5人，由股东会选举产生。董事任期三年，任期届满，可连选连任。董事会在任期届满前，股东会不得无故解除其职务。董事会设董事长一人，副董事长一人，由董事会选举和产生。

董事会行使下列职权：

- (一) 负责召集股东会，并向股东会报告工作；
- (二) 执行股东会决议；
- (三) 决定公司的经营计划和投资方案；
- (四) 制定公司的年度财务预算方案、决算方案；
- (五) 制定公司的利润分配方案和弥补亏损方案；
- (六) 制定公司增加或者减少注册资本的方案；
- (七) 拟定公司合并、分立、变更公司形式、解散的方案；
- (八) 决定公司内部管理机构的设置；
- (九) 聘任或者解聘公司经理(总经理，以下简称经理)、公司副经理、财务负责人，决定其报酬事项；
- (十) 制定公司的基本管理制度。

第十九条 董事会会议由董事长召集和主持；董事长因特殊原因不能履职时，由副董事长主持。三分之一以上的董事可以提议召开董事会会议，并应于会议召开十日以前通知全体董事。

第二十条 董事会对所议事项作出的决定应由二分之一以上的董事表决通过方为有效，并应作成会议记录，出席会议的董事应当在会议记录上签名。

第二十一条 公司设经理一名，由董事会聘任或解聘，行使下列职权：

- (一) 主持公司的经营管理工作，组织实施董事会决议；
- (二) 组织实施公司年度经营计划和投资方案；
- (三) 拟订公司内部管理机构设置方案；
- (四) 拟订公司的基本管理制度；
- (五) 制定公司的具体规章；
- (六) 聘任或者解聘除应由董事会聘任或解聘以外的负责管理人员；经理列席董事会会议；
- (七) 公司章程授予的其他职权；
- (八) 经理列席董事会会议。

第二十二条 公司设监事一人，监事由股东会选举产生。监事任期每届三年，任期届满，可连选连任。

第二十三条 监事行使下列职权：

- (一) 检查公司财务；
- (二) 对董事、经理执行公司职务时违反法律、法规或者公司的章程的行为进行监督；
- (三) 当董事和经理的行为损害公司的利益时，要求董事和经理予以纠正；

(四)提议召开临时股东会;

监事列席董事会会议。

第二十四条公司董事会成员、经理、财务负责人不得兼任监事。

第八章 公司的法定代表人

第二十五条董事长为公司的法定代表人，任期为三年，由董事会选举和罢免，任期届满，可连选连任。

第二十六条董事长行使下列职权：

(一)主持股东会和召集董事会议；

(二)检查股东会议和董事会议的落实情况，并向董事会报告；

(三)代表公司签署有关文件。

(四)在发生战争，特大自然灾害等紧急情况下，对公司事物行使特别裁决权和处置权，但这类裁决权和处置权须符合公司利益，并在事后向董事会和股东会报告。

第九章 财务、会计、利润分配及劳动用工制度

第二十七条公司应当依据法律、行政法规和国务院财政主管部门的规定建立本公司的财务、会计制度。并应在每一会计年度终了时制作财务会计报告，并应于第二年2月1日前送交各股东。

第二十八条公司利润分配按照《公司法》及有关法律、法规、国务院财政主管部门的规定执行。

第二十九条劳动用工制度按国家法律、法规及国务院劳动部门的有关规定执行。

第十章 公司的解散事由与清算办法

第三十条公司的营业期限20年，从《企业法人营业执照》签发之日起计算。

第三十一条公司有下列情形之一的，可以解散：

(一)公司章程规定的营业期限届满或者公司章程规定的其他解散事由出现时；

(二)股东会决议解散；

(三)因公司合并或者分立需要解散的；

(四)公司违反法律、行政法规被依法责令关闭的；

(五)因不可抗力无法继续经营的；

(六)宣告破产。

第三十二条公司解散时，应依据《公司法》的规定成立清算组对公司进行清算。清算结束后，清算组应当制作清算报告，报股东会确认，并报送公司登记机关，申请注销公司登记，公告公司终止。

第十一章 股东认为需要规定的其他事项

第三十三条公司根据需要或涉及公司登记事项变更的可修改公司章程，修改后的公司章程不得与法律、法规相抵触，修改公司章程应由全体股东表决通过，修改后的公司章程应送原公司登记机关备案，涉及变更登记事项的，同时应向公司登记机关做变更登记。

第三十四条公司章程的解释权属于董事会。

第三十五条公司登记事项以公司登记机关核定的为准。

第三十六条本章程经各方出资人共同订立，自公司设立之日起生效。

第三十七条本章程一式二份，并报公司登记机关备案一份。

第三十八条本章程内容如有与国家法律、法规相抵触以国家法律、法规为准。

全体股东亲笔签名、盖章：

姚何君

2003. 6. 25.



王兴华



2003年6月25日

董事会成员、经理、监事任职证明

姓名	性别	国籍	任职期限	职务	身份证号码	现居所	产生方式
姚向君	女	中国	三年	董事长	110108640524132	北京市朝阳区花家地西里 110 楼 14-201#	选举
王兴华	女	中国	三年	副董事长	110108500708422	北京市海淀区复兴路 61 号东 3 楼 4 门 102 号	选举
方放	男	中国	三年	董事	340104701210351	北京市朝阳区东三环北路甲 12 号	选举
王海	男	中国	三年	董事	230106720407201	北京市朝阳区东环北路甲 12 号	选举
李景明	男	中国	三年	董事	110108611118343	北京市海淀区西三环北路 105 号 14 号楼 31 号	选举
王海	男	中国	三年	经理	230106720407201	北京市朝阳区东环北路甲 12 号	聘任
沈佳丽	女	中国	三年	监事	230715640930002	北京市中国农业大学	选举

北京弘远环能科技有限公司

验资报告

北京中博华会计师事务所

验资报告

中博华(2003)验字第 031024 号

北京弘远环能科技有限公司（筹）全体股东：

本所接受关于验证注册资本的委托，指派注册会计师根据国家颁布的法律、法规及有关政策进行了验证，现将验证的结果报告如下：

申请	申请开业企业名称	北京弘远环能科技有限公司					
开业 企业	地 址	北京市朝阳区麦子店街 41 号 808 室					
	法定代表人	姚向君		电 话	65729549		
	经济性质 (企业类型)	有限责任公司		核算形式	独立核算		
	批准机关	北京市工商行政管理局 朝阳分局		批准文号 及日期	(京朝)企名预核(内)字 [2003]第 11010624 号		
基本 情况	经营范围	以工商局批准后的经营范围为准					
缴纳 出资 金额 验证	投资单位	货币投资 (万元)		实物投资 (万元)		无形资产投资 (万元)	
	名 称	应缴金额	确认金额	应缴金额	确认金额	应缴金额	确认金额
	爱意能源环保技术 开发公司	5.5	5.5				
	中农科技发展公司	4.5	4.5				
	合 计	10	10				

验资事项说明

一、组建及审批情况

贵公司（筹）由爱意能源环保技术开发公司（以下简称甲方）、中农科技发展公司（以下简称乙方）共同出资组建，于2003年6月16日取得北京市工商行政管理局朝阳分局核发的（京朝）企名预核（内）字[2003]第11010624号《企业名称预先核准通知书》，正在申请办理设立登记。

二、申请的注册资本及出资规定

根据经批准的协议、章程的规定，贵公司（筹）申请登记的注册资本为人民币10万元，由全体股东于2003年7月4日之前缴足。其中：甲方应出资人民币5.5万元，占注册资本的55%，出资方式为货币5.5万元；乙方应出资人民币4.5万元，占注册资本的45%，出资方式为货币4.5万元。

三、注册资本验证情况

我们接受委托，审验了贵公司（筹）截至2003年7月4日止申请设立登记的注册资本实收情况。按照国家相关法律、法规的规定和协议、章程的要求出资，提供真实、合法、完整的验资资料，保护资产的安全、完整是全体股东及贵公司（筹）的责任。我们的责任是对贵公司（筹）注册资本的实收情况发表审验意见。我们的审验是依据《独立审计事务公告第1号——验资》进行的。在审验过程中，我们结合贵公司（筹）的实际情况，实施了检查等必要的审验程序。

截至2003年7月4日止，贵公司（筹）已收到甲方、乙方缴纳的注册资本合计人民币10万元。

(一) 甲方缴纳人民币 5.5 万元。其中: 2003 年 7 月 4 日缴存中国建设银行北京呼家楼支行人民币帐户 2630814656 帐号 5.5 万元。

(二) 乙方缴纳人民币 4.5 万元。其中: 2003 年 7 月 4 日缴存中国建设银行北京呼家楼支行人民币帐户 2630814656 帐号 4.5 万元。

10 万元注册资本金全部到位。

四、审验说明

1、本验资报告供贵公司(筹)申请设立登记及据以向全体股东签发出资证明时使用, 不应将其视为是对贵公司(筹)验资报告日后资本保全、偿债能力和持续经营能力等的保证。因使用不当造成的后果, 与执行本验资业务的注册会计师及会计师事务所无关。

2、被审验单位注册登记后不得抽回出资, 凭本报告为股东签发出资证明书。

3、被审验单位尚未建立会计账簿, 全体出资者缴纳的注册资本尚未进行相关的会计处理。

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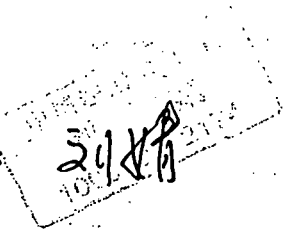
北京中博华会计师事务所



主任会



中国注册会计师:



中国·北京

2003年7月4日

交存人资资金报告单(第二联)

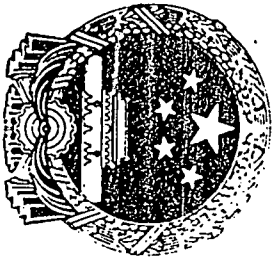
交存单位名称	中夜科技发展有限公司	付款账号	
指定交存银行		交换号	
已 交 存 金 额			
人民币	亿	千	百
(大写) 肆万伍仟元正	4	5	0000
	十	万	千
		百	十
		元	角
		分	
上列款项已于 月 日交存我行, 开立 62081416 号账户。此致			
..... 工商行政管理局			
北京中博华会计师事务所		建设银行 (签章)	
北京中博华会计师事务所		2023 年 7 月 6 日	

由企业交工商行政管理局

交存人资资金报告单(第二联)

交存单位名称	爱意能源环保科技有限公司	付款账号	
指定交存银行		交换号	
已 交 存 金 额			
人民币	亿	千	百
(大写) 肆万伍仟元正	4	5	0000
	十	万	千
		百	十
		元	角
		分	
上列款项已于 月 日交存我行, 开立 62081416 号账户。此致			
..... 工商行政管理局			
北京中博华会计师事务所		建设银行 (签章)	
北京中博华会计师事务所		2023 年 7 月 6 日	

由企业交工商行政管理局



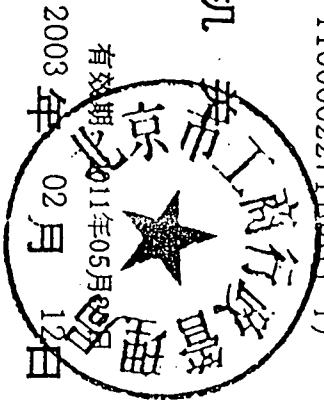
合伙企业 营业执照

(副本)

注册号

1100002271148(1-1)

发照机



企业名称：北京中博华会计师事务所

经营场所：北京市西城区德宝小区德宝饭店

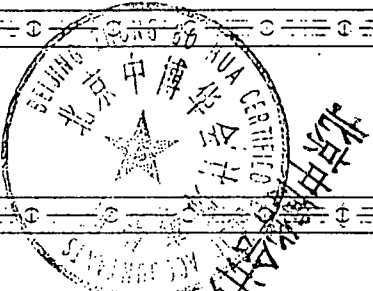
928室

核准会计师事务所
核准合伙企业
核准的合伙人：汤沁洲

经营范围及方式：审计企业会计报表，出具审计报告；
验证企业注册资本（金），出具验资报告；办理企业
合并、分立、清算事项中的审计事务，出具有关的报告；
资产评估；基本建设施工预决（结）算审计验证；法律、
法规规定的其他审计业务。* * *

年度检验

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22864
(3 of 3)

Annex III

Terms of Reference

for Production Technology and Product Marketing Consortium Support Measures

Annex III

Terms of Reference

for Production Technology and Product Marketing Consortium Support Measures

Terms of Reference

- Project No. and Title: United Nations Industrial Development Organisation Project
EG/CPR/99/G31 - "Energy Conservation and GHG Emissions
Reduction in Chinese TVEs – Phase II"
- Title of Terms of Reference: "Support to Product Technology and Product Marketing
Consortium (PTPMC) to ensure sustainability of their activities"
- Implementing Agency: Sole bidder for Year 1 and 2 is Product Technology and Product
Marketing Consortium
- Duration of Service: 24 months (Anticipated from September 2003 to September 2005),
extendable subject to bidding for a further 1 year

Overall Project Background:

Township-Village Enterprises (TVEs) constitute a significant share of Chinese economic production and social welfare. TVEs also contribute significantly to local and global environmental problems. In the early part of 1999, UNDP/GEF approved a project titled "Energy Conservation and GHG Emissions Reduction in Chinese TVEs – Phase II". This project is to reduce GHG emissions in China from the TVE sector by increasing the utilization of energy efficient technologies and products in the brick, cement, metal casting and coking sectors. The project removes key market, policy, technological, and financial barriers to the production, marketing and utilization of energy efficient technologies and products in these industries.

Project objectives include: a) creating institutional mechanisms for barrier removal at the national, county and enterprise level; b) establishing incentives and monitoring systems to strengthen existing regulatory programs at the county level; c) building technical capacity for energy efficiency and product quality improvement in TVEs; d) creating access to commercial financing for TVE in the four industries; and e) commercialize the financing of TVE energy conservation projects and; f) expanding the application of best practices for local regulatory reform to the national level.

Establishment & sustainable operation of the Production Technology and Product Marketing Consortium (PTPMC) in China is one of the crucial tasks in the project. The current status of the setting up of PTPMC is:

- ✓ The PTPMC business plan has been drafted
- ✓ PTPMC is registered as a commercial entity with two initial shareholders (IE Energy and Environmental Protection Company and Zhongnong Company)

- ✓ PTPMC Secretariat has key staff and office resource to support the establishment of PTPMC
- ✓ PTPMC has other initial business opportunities that are currently under development, e.g. proposal for developing Clean Development Mechanism Projects in the TVE Sector.

It has been recognised by all stakeholders to the Project that it is crucial to provide foundation assistance to PTPMC via providing opportunities to carry out activities in support of the Project and thereby build its internal capabilities and reputation through “learning by doing” so that after two to three years of operation PTPMC can sustainably continue. Furthermore these activities should be carried out by suitably qualified staff of PTPMC on a contractual basis with performance linked payment. This was agreed at the meeting between all of the Project stakeholders on 21st May and it was further decided to structure this foundation support as a Contract between UNIDO and PTPMC under Budget Line 21 with a clear Terms of Reference determining the activities and deliverables. This Terms of Reference would be in addition to other previously agreed Project support for PTPMC, e.g. for purchasing IT hardware/software, provision of office space and on-going support of salary costs of the PTPMC Secretariat.

Objectives

The overall objectives for the activities outlined in this Terms of Reference are:

- To support the development of PTPMC as a sustainable operating company via supporting it to carry out additional “learning by doing” activities for the following Project subcontracts:
 - 21-100 Regulatory Reform Service Group Subcontract (Budget 410,000 US\$) – this will be subject to separate agreements between PIC and PTPMC
 - 21-200 Engineering Service Group Subcontracts (Budget 1,940,000 US\$)
 - 21-300 Marketing management Service Group Subcontract (Budget 770,000 US\$)
 - 21-400 Finance management Service Group Subcontract (Budget 600,000 US\$)
- To ensure PTPMC can attract suitably qualified staff for it to build its reputation in the market and deliver the Projects broader objectives
- To ensure close linkages and support services between PTPMC and the Revolving Capital Fund and the Policy Implementation Committee (PIC) and the local counterparts (LPICs).
- To assist PTPMC to expand its membership base so that PTPMC can build its revenue from other services during the foundation period
- To give PTPMC some revenue certainty in the short term (first two years) and assist it to migrate to full performance based bidding and commercial operation in three years time
- To capture best practices from the project implementation and use these to highlight the Projects outcomes and as case studies to showcase PTPMC’s reputation and experience

Proposed scope of work

It is proposed that the following scope of work is carried out by PTPMC to meet the objectives stated above:

Task 1. To provide services in support of delivery of the 21-200 Engineering Service Group Subcontracts

Year 1 Activities

1.1 Set up processes for management of the engineering service group contracts and carry out initial proposal solicitation and training :

- **Proposed Schedule:** Month 1 to Month 6 after contract award
- **Objective:** Ensure PTPMC has the capabilities, processes and materials (e.g. training for loan officers and TVEs) to ensure good programme management of the contracts for the pilot projects and that the opportunity portal is developed according to industry requirements and is popular and that good quality proposals are solicited.
- **Sub-Tasks:** To achieve the above objective for this activity, PTPMC will carry out the following sub-tasks:
 - *Scope out and put in place the required internal and external facing processes/systems for contract management of the engineering service group contracts. This should include the development of the required standard contractual arrangements e.g. between TVEs and PTPMC, PTPMC and its members, and RCF and PTPMC, which include the revenue sharing and fees for service arrangements.*
 - *Carry out needs assessment and develop a training strategy and package for TVEs and ABC loan officers to provide proposals to PTPMC and prepare bankable energy conservation project proposals*
 - *Develop the initial opportunity portal as envisaged in the business plan for managing the product and service opportunities that PTPMC will post on behalf of TVEs and for which PTPMC members will bid. This will include developing an appropriate section on the PTPMC website.*
 - *Carry out initial training for the developed training strategy and package to TVEs and ABC loan officers so that proposals are received, reviewed, posted to the portal and contracts for equipment procurement developed and posted to the opportunity portal. This will require an initial training session.*
 - *Solicit initial proposals for the pilot projects and trial them through the developed processes and systems and use this "learning by doing" to refine them*
- **PTPMC Staff requirements:** RCF Services Manager, Technical Director, Contracts Manager, National TVE Marketing Manager, others as required.
- **Deliverables:**
 - A report outlining the detailed processes/systems that PTPMC will put in place to facilitate and manage contracts, with standard contracts attached

- as annexes (end month 2)
- A report summarizing the training needs assessment for TVEs and ABC Loan officers to use the proposed processes/systems and develop bankable project proposals through it (end month 2)
- Website, including the opportunity portal (end month 3)
- Training strategy and package for TVE Managers and ABC Loan Officers to use the PTPMC systems and on the preparation of bankable energy conservation project proposals (end month 3)
- Report on initial training carried out and feedback received. (end month 4)
- Report on the initial “learning by doing” trials of the processes/systems (end Month 6)
- **Estimated Input:** 15 man months (PTPMC), 18 national flights, 40 per diems initial opportunity portal website (US40,000) , initial training session (US20,000)
- **Justification:** The early setting up of PTPMCs processes to engage and manage its dealings with TVEs, ABC loan officers, PTPMC members providing engineering services to the Pilot projects and Financing institutions is essential to the delivery of the pilot projects.

1.2 Continue to refine the developed systems and processes to manage the Engineering Service Group Contracts for Year 1 pilot projects and issue a summary report to the contracting authority by the end of Year 1 on PTPMC contract management performance

- **Proposed Schedule:** Month 6 to Month 12 after Contract award
- **Objective:** Coordinate TVEs, PTPMC members and RCF to ensure goods and services are delivered for the pilot projects implementation – assumed 4 in Year 1 of PTPMC and 4 in Year 2
- **Sub-Tasks:** To achieve the above objective for this activity, PTPMC will carry out the following sub-tasks:
 - Keep Quality auditable records of all proposals/correspondence received from TVEs by PTPMC and all procurement managed by PTPMC on behalf of TVEs and financing proposals with RCF
 - Issue a summary report on the performance of PTPMC’s systems and processes in meeting the needs of the Year 1 Pilot projects, highlighting any weaknesses and suggesting ways to improve them
- **PTPMC Staff requirements:** National TVE Marketing Manager and PTPMC Information Officer, RCF Services Manager, Technical Director, Contracts Manager
- **Deliverables**
 - Report on Year 1 performance of PTPMC in coordinating and managing the Year 1 Pilot projects (by month 12)
- **Estimated Input:** Record keeping is paid for from opportunity portal revenues, Year 1 report requires 1 man month input (PTPMC)
- **Justification:** Key to project’s demonstrable success

Year 2 Activities

1.3 Develop Monitoring and Verification Plan and procedures for the implemented Year 1 projects and use these as a baseline to investigate the potential for CDM registration of Year 2 projects as CDM projects

- **Proposed Schedule:** Month 12 to Month 18 after Contract award
- **Objective:** Support PTPMC to monitor the projects implementation and allow it to be a conduit for promoting TVE projects as CDM projects
- **Sub-Tasks:** To achieve the above objective for this activity, PTPMC will carry out the following sub-tasks:
 - Carry out 1-2 baseline missions to each project site to identify key contacts and develop Monitoring and Verification Plans (MVP) together with local project sponsors
 - For sites which are completed, trial MVP for 1-2 months
 - Carry out follow up evaluation missions to sites to establish how effective MVP is and any issues encountered and how to solve any problems
 - Get MVP's signed off
 - Assess whether Year 2 pilot projects could be registered as CDM projects and if so carry out the necessary steps, e.g. place a request on the opportunity portal for CDM service providers
- **PTPMC Staff requirements:** Technical Director, others as required
- **Deliverables:**
 - Mission reports for each site visit (following a standardized template)
 - Project Monitoring and Verification Procedures (by month 18)
 - If applicable, proposal to develop one pilot project as a CDM project
- **Estimated Input:** 6 man months (PTPMC), 12 National flights, 60 per diems
- **Justification:** Required for in Project Document, supports PTPMC to carry out next phase of Projects, ensures Project outcomes are measurable, facilitates use of CDM

1.4 PTPMC will develop Best practice case studies for Year 1 Projects and carry out two case study information dissemination /industry training workshops for soliciting and preparing post-Phase II proposals

- **Proposed Schedule:** Month 12 to Month 24 after Contract award
- **Objective:** Ensure PTPMC can gain experience of the project implementation and incorporate this in future projects and disseminate the information to build support for replicable projects elsewhere in China.
- **Sub-Tasks:** To achieve the above objective for this activity, PTPMC will carry out the following sub-tasks:
 - Develop best practice case study template in line with international best practices which captures the key learnings and is detailed enough for an industry training event
 - Visit pilot project sites to capture information to fill in template, including photographing key elements of the project and potentially visiting other national/international sites where similar projects have been carried out
 - Write up case studies

- Revisit site at a later date to capture implementation plus 6 months experience
- Develop agenda for case study information dissemination /industry training workshops
- Organise and hold workshops, preferably in parallel with other key relevant events
- **PTPMC Staff requirements:** RCF Manager, Technical Director, National TVE Marketing Manager and PTPMC Information Officers
- **Deliverables**
 - Best practice case studies – one per project (and posted to PTPMC/CADDET/other relevant websites) (by month 21)
 - 2 Information dissemination /training workshops with follow-on projects identified and concept notes created for (by month 24)
 - Mission reports to support the above deliverables
 - Summary of the workshops
- **Estimated Input:** 5 man months (PTPMC), 8 National flights, 2 international flight, 50 per diems, plus US40,000 for PTPMC to organize 2 workshops / industry training events.
- **Justification:** Required by Project Document, supports PTPMC to develop post-Phase II projects, builds PTPMC ability to ideate and develop new project concepts for its members to bid for

1.5 Continue to refine the developed systems and processes to manage the Engineering Service Group Contracts for Year 2 pilot projects and issue a summary report to the contracting authority by the end of Year 2 on PTPMC contract management performance

- **Proposed Schedule:** Month 12 to Month 24 after Contract award
- **Objective:** Coordinate TVEs, PTPMC members and RCF to ensure goods and services are delivered for the pilot projects implementation – assumed 4 in Year 2
- **Sub-Tasks:** To achieve the above objective for this activity, PTPMC will carry out the following sub-tasks:
 - Keep Quality auditable records of all proposals/correspondence received from TVEs by PTPMC and all procurement managed by PTPMC on behalf of TVEs and financing proposals with RCF
 - Issue a summary report on the performance of PTPMC's systems and processes in meeting the needs of the Year 2 Pilot projects, highlighting any weaknesses and suggesting ways to improve them
- **PTPMC Staff requirements:** National TVE Marketing Manager and PTPMC Information Officer, RCF Services Manager, Technical Director, Contracts Manager
- **Deliverables**
 - Report on Year 2 performance of PTPMC in coordinating and managing the Year 2 Pilot projects (by month 24)
- **Estimated Input:** Record keeping is paid for from opportunity portal revenues, Year 2 report requires 1 man month input (PTPMC)
- **Justification:** Key to project's demonstrable success

Year 3 Activities

1.6 PTPMC will develop Best practice case studies for Year 2 Projects and carry out two case study information dissemination /industry training workshops for soliciting and preparing post-Phase II proposals

- **Proposed Schedule:** Month 24 to Month 36 after Contract award
- **Objective:** Ensure PTPMC can gain experience of the project implementation and incorporate this in future projects and disseminate the information to build support for replicable projects elsewhere in China.
- **Sub-Tasks:** To achieve the above objective for this activity, PTPMC will carry out the following sub-tasks:
 - Develop best practice case study template in line with international best practices which captures the key learnings and is detailed enough for an industry training event
 - Visit pilot project sites to capture information to fill in template, including photographing key elements of the project and potentially visiting other national/international sites where similar projects have been carried out
 - Write up case studies
 - Revisit site at a later date to capture implementation plus 6 months experience
 - Develop agenda for case study information dissemination /industry training workshops
 - Organise and hold workshops, preferably in parallel with other key relevant events
- **PTPMC Staff requirements:** RCF Manager, Technical Director, National TVE Marketing Manager and PTPMC Information Officers
- **Deliverables**
 - Best practice case studies – one per project (and posted to PTPMC/CADDET/other relevant websites) (by month 33)
 - 2 Information dissemination /training workshops with follow-on projects identified and concept notes created for (by month 36)
 - Mission reports to support the above deliverables
 - Summary of the workshops
- **Estimated Input:** 5 man months (PTPMC), 8 National flights, 2 international flight, 50 per diems, plus US40,000 for PTPMC to organize 2 workshops / industry training events.
- **Justification:** Required by Project Document, supports PTPMC to develop post-Phase II projects, builds PTPMC ability to ideate and develop new project concepts for its members to bid for

Reports included in the above deliverables for Task 1 should be submitted in Chinese and English.

Task 2. To provide services in support of delivery of the 21-300 Marketing Management Group
UNDIO Project EG/CPR/99/G31 – PTPMC Foundation TOR

Contract

Year 1 Activities

2.1 PTPMC will review the relevance of the as designed marketing Group Contract Activities (building materials) in light of the changes to the TVE sector since the project inception and make recommendations for a 3 year roadmap of how Marketing Management Group Contract budget should be spent to stimulate product marketing, training and related services to TVEs

- **Proposed Schedule:** Month 1 to Month 4 after Contract award
- **Objective:** To ensure the PTPMC marketing initiatives are relevant to the TVE sector of today and give PTPMC good experience in developing marketing strategies for tackling the four core sectors of the Project.
- **PTPMC Staff requirements:** National TVE Marketing Manager and PTPMC Information Officer
- **Sub-Tasks:** To achieve the above objective for this activity, PTPMC will carry out the following sub-tasks:
 - Review output of contract of market research into four industries (budget number 21-300)
 - Review other materials collected by the project.
 - Carry out primary (telephone and face to face interviews) and secondary research (through questionnaires) to ascertain how to improve the impact of the marketing group contract. Contacts will be provided with PTPMC marketing material.
 - Develop revised roadmap of activities for sign off by PMO.
- **Deliverables:**
 - Report detailing revised roadmap for the Marketing Group Contracts with detailed recommendations on how the budget is best spent and the outcomes/deliverables from the expenditure (by end of Month 4)
- **Estimated Input:** 4 man months (PTPMC), 8 national flights, 35 per diems
- **Justification:** The as designed TOR in the Project Document needs updating to reflect current situation and needs, gets TVE Marketing Manager and PTPMC Information Officer up to speed on the latest market situation.

2.2 Develop PTPMC marketing and launch strategy and hold Official PTPMC Launch Ceremony and one follow up regional event

- **Proposed Schedule:** Month 2 to Month 6 after Contract award
- **Objective:** To ensure that PTPMC meets its membership numbers, can attract the attention of the key stakeholders and that the marketing strategy as outlined in the business plan can be put into action
- **PTPMC Staff requirements:** National TVE Marketing Manager and PTPMC Information Officer
- **Sub-Tasks:** To achieve the above objective for this activity, PTPMC will carry out the following sub-tasks:

- Create launch publicity material and agenda
- Organise and hold launch event, inviting key TVEs, potential National and International Members and other relevant stakeholders
- Organise follow up regional meeting in area of biggest potential
- **Deliverables**
 - Successful launch event and regional workshop and marketing of PTPMC
 - Summary report of workshops including identification of phase II pilot projects
- **Estimated Input:** US\$50,000
- **Justification:** As per budget line of Project (5.2.3.)

Year 2 Activities

2.3 Arrange for an external review of PTPMC operations and hold annual meeting of PTPMC where this is presented

- **Proposed Schedule:** Month 12 to Month 18 after Contract award
- **Objective:** Ensures external peer review of PTPMC by its members and that reinforcing good practices and suggesting improvements to failings can be identified and dealt with early on.
- **PTPMC Staff requirements:** All PTPMC Staff
- **Sub-Tasks:** To achieve the above objective for this activity, PTPMC will carry out the following sub-tasks:
 - Develop terms of reference and identify and select a suitably qualified external reviewer for PTPMC
 - Work closely with reviewer to develop a comprehensive report on year 1 performance and future strategy.
 - Arrange annual meeting of PTPMC where review report is presented
- **Deliverables:**
 - Joint Review Report on PTPMC year 1 activities and recommended actions for PTPMC going forward (by month 17)
 - Annual meeting of PTPMC held and External Reviewer Report reviewed by PTPMC membership
 - Report summary on annual meeting (within one month of meeting)
- **Estimated Input:** 3 man months (PTPMC), 10 per diems, plus annual meeting for US\$20,000
- **Justification:** Required by Project Document, ensures open peer review of PTPMC performance

Year 3 Activities

- *None proposed to be supported*

Reports included in the above deliverables for Task 2 should be submitted in Chinese and
UNDIO Project EG/CPR/99/G31 – PTPMC Foundation TOR

English.

Task 3. To provide services in support of delivery of the 21-400 Finance Management Group Contract

Year 1 Activities

3.1 Work with consultant who developed RCF to receive training in how to manage the RCF funds under the management of PTPMC and how to train TVEs to create bankable proposals and apply for financial support from RCF

- **Proposed Schedule:** Month 1 to Month 6 after Contract award
- **Objective:** Ensure the as-designed RCF is implemented smoothly and transition PTPMC into full control of the funds at its disposal.
- **PTPMC Staff requirements:** RCF Services Manager
- **Sub-Tasks:** To achieve the above objective for this activity, PTPMC will carry out the following sub-tasks:
 - Receive training in how RCF to work
 - Develop training strategy and package for how TVEs will apply to RCF for funds
 - Carry out training in conjunction with sub-Tasks of Activity 1.1
- **Deliverables**
 - Training package in the processes for fund application evaluation, approval, disbursement and monitoring and repayment – both for internal and external (TVE) use.
 - Summary of training received
- **Estimated Input:** 4 months PTPMC, 2 man month (local best practice partner)
- **Justification:** As required by Project Document and proposed RCF format

3.2 PTPMC will be responsible for operation of portion of the RCF under its management and will carry out its required activities for Year 1 ensuring development and closure of 4 bankable project proposals and associated capacity building

- **Proposed Schedule:** Month 1 to Month 12 after Contract award
- **Objective:** Ensure good stream of proposals for RCF to evaluate, at least 4 of which to proceed to implementation
- **PTPMC Staff requirements:** RCF services Manager, National TVE Marketing Manager, Technical Director and Contracts Manager
- **Sub-Tasks:** To achieve the above objective for this activity, PTPMC will carry out the following sub-tasks:
 - To be inserted by PMO from RCF documents
- **Deliverables:**
 - Financial documentation for the Projects
 - Financial assessment of the projects
 - Financial closure of projects
 - Summary Report on Year 1 performance (by month 12)

- **Estimated Input:** 8 man months PTPMC, 8 national flights, 20 per diems
- **Justification:** Required by Project Document

3.3 Hold financing workshop to present bankable project proposals, build financier interest in supporting and contributing to the RCF, develop the RCF financing and marketing plan and identify further financial barriers to EE projects in the TVE sector

- **Proposed Schedule:** Month 6 to Month 12 after Contract award
- **Objective:** To mobilize additional finance for the RCF to meet the Phase II and post-Phase II projects and ensure that additional complementary financing mechanisms to RCF are explored and incorporated into its future development
- **Sub-Tasks:** To achieve the above objective for this activity, PTPMC will carry out the following sub-tasks:
 - Develop workshop agenda, invitation list and materials
 - Organise and hold the workshop, including action oriented financing working groups to achieve the objectives
 - Write a workshop summary report
 - Follow-up leads and close additional funding for RCF and project proposals
 - Revise the RCF financing and marketing plan
- **PTPMC Staff requirements:** RCF Services Manager, National TVE Marketing Manager and PTPMC Information Officer
- **Deliverables**
 - Commitments to fund RCF beyond project period
 - Marketing materials for RCF
 - Marketing materials e.g. investment memoranda for project proposals
 - Workshop Proceedings and Summary Report
 - Revised RCF financing and marketing plan
- **Estimated Input:** 5 man months (PTPMC), 1 National flights, 10 per diems, plus US30,000 for PTPMC to organize workshop.
- **Justification:** As required by Project Document

Year 2 Activities

3.4 PTPMC will be responsible for operation of portion of the RCF under its management and will carry out its required activities for Year 2 ensuring development and closure of 4 bankable project proposals and associated capacity building

- **Proposed Schedule:** Month 12 to Month 24 after Contract award
- **Objective:** Ensure good stream of proposals for RCF to evaluate, at least 4 of which to proceed to implementation
- **PTPMC Staff requirements:** RCF services Manager, National TVE Marketing Manager, Technical Director and Contracts Manager
- **Sub-Tasks:** To achieve the above objective for this activity, PTPMC will carry out the following sub-tasks:
 - To be inserted by PMO from RCF documents

- **Deliverables:**
 - Financial documentation for the Projects
 - Financial assessment of the projects
 - Financial closure of projects
 - Summary Report on Year 2 performance (by month 24)
- **Estimated Input:** 8 man months PTPMC, 8 national flights, 20 per diems
- **Justification:** Required by Project Document

Year 3 Activities

- *None proposed to be supported*

Reports included in the above deliverables for Task 3 should be submitted in Chinese and English.

Anticipated Schedule and Reporting Requirements

Within one month of contract signing PTPMC will provide an Inception Report which includes a detailed 6 month and Year 1 workplan as well as an overall 3 year workplan for the Activities of the Project and agree with the PMO the key performance indicators for the Project and how they will be used to establish actual performance. Every 6 months these plans will be updated.

It is anticipated that there will also be regular 3 monthly progress reports to be submitted to the contracting authority, together with monthly updates.

Estimated required inputs

It is estimated that the accomplishment of the above-listed tasks will require the following effort:

	PTPMC Effort	Other inputs
Task 1	33 man months	4 International flights, 71 national flights,
Task 2	7 man months	
Task 3	27 man months	

Total	At least 67 man months	
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Coordination requirements and responsibilities of Parties

PTPMC will need to work closely with the key stakeholders in the Project namely, the PMO, UNDP, UNIDO, MoA and its relevant departments, Agricultural Bank of China. Overall coordination of the Project activities will remain with the Project Management Office.

Staffing Requirements

PTPMC should propose key staff that will support it to carry out the activities listed in this Terms of Reference and obtain "Statements of Availability" from them.

A Terms of Reference for each of the desired staff positions in PTPMC is included in Attachment 1, together with a proforma statement of availability which is included as Attachment 2. Should a role take longer than anticipated to fill then a temporary consultant can be used to ensure Project delivery.

Estimated Support to PTPMC for the activities of this TOR from Project Budget Line 21

The estimated foundation support to PTPMC to carry out the activities above is as follows:

	Year 1 (US\$)	Year 2 (US\$)	Year 2 (US\$)
Task 1	108,040	94,910	66,250
Task 2	66,935	28,010	0
Task 3	79,630	23,620	0
Total cost to Project	254,605	146,540	66,250
Portion of this to support PTPMC labour costs (i.e. excluding travel, workshops, per diems)	105,800	62,600	19,000
Nature of Award	Grant contract to PTPMC	Grant contract to PTPMC, based on previous years performance	Open bidding for all contracts, including PTPMC grant

PTPMC should meet all national and international traveling costs and per diems out of this amount. Furthermore this budget should include costs for inception meetings, internal working group meetings and seminars that PTPMC requires to carry out as part of its activities.

It is proposed that this support is invoiced on a monthly basis against clear reports and deliverables, with the first two months of each year paid upfront. PTPMC will be responsible for any tax or other liability in support of delivering this contract.

Attachment 1 – Role description and qualifications of staff in addition to the PTPMC Secretariat

In addition to the PTPMC Secretariat staff supported by the project, an additional three key staff are required under this TOR:

- RCF Services Manager – financing for this should be transferred from the RCF funding [comment received from the PMO suggested all 3 positions should transfer – is this the case]
- National/TVE Marketing Manager
- Technical Director (combining Project management, ESCO services and CDM)

The International Membership Director, that is envisaged in the PTPMC business plan as a separate role, will be covered by an expanded role for the current PTPMC Information Management Officer.

The requirements and role are now explained in more detail

RCF Services Manager

Justification for role: A key gap in the market currently is TVE's ability to create bankable project proposals and for banks to find and screen potential projects. PTPMC aims to provide services to bridge this barrier to the financing of EE projects in the four key TVE sectors and therefore an RCF manager is required to inject the necessary financing experience in to PTPMC. Furthermore PTPMC is now playing a more significant role in the management of the RCF funds.

Reporting: reports directly to PTPMC Director

Description of role: The RCF services manager's role is to manage the interaction of PTMC and the RCF fund and other lenders. The RCF manager is to build relationships with the key financial services members within PTPMC and assist the National/TVE marketing manager and international partnership director in building this membership. The RCF services manager might also assist the RCF to attract more funds depending on the RCF business plan. The RCF manager is in charge of delivering the following key services:

- RCF loan application advisor
- Loan Application Screening / Pre-loan - due diligence
- Post Loan Approval – Due Diligence

Initially the RCF manager will both need to carry out business development but also implement the projects. The RCF manager will be responsible for overseeing the Finance Management Service Group contracts. The RCF manager will recruit additional staff, with approval from the

PTPMC Director, as the business volume grows.

Requirements for role: PTPMC should select an RCF Manager with the following characteristics:

- 10+ years in the banking sector with experience in project screening, due diligence, lending, credit evaluation, and loan monitoring
- Ideally some experience of revolving capital funds and other innovative funding mechanisms
- Ideally some experience of technical projects, like Energy Efficiency
- Ideally experience with developing relationships with other banks, both national and international
- Fluent in Mandarin, Reasonable level of English
- Typically early 30's with ability to both develop business and implement projects
- Likely to be able to build up and lead the RCF team (the model shows that this team is likely to reach 3 within five years)

Timeline for hire: Recruitment process should start immediately after PTPMC is registered

Proposed Initial Salary: US2000 per month

National/TVE Marketing Manager

Justification for role: A key need for PTPMC to grow its business is to develop a network of national PTPMC members and manage an outreach and marketing campaign to TVE's in the four key sectors, the MoA, and as time progresses other SMEs, SOEs and TVEs in different sectors. This requires a full time National/TVE Marketing Manager to work together with the IMD in driving membership numbers and service revenue.

Reporting: reports directly to PTPMC Director

Description of role: The National/TVE Marketing Manager's role is to manage and build the number of national members of PTPMC as well as manage the outreach program to TVEs, MoA etc. Working together with the IMD, the National/TVE Marketing Manager identifies potential members, negotiates membership terms with them and manages the national elements of the provision of the following services to them:

- Website Tender Notification
- Email Tender Alert
- Tenders Bulletin Fax Service
- Project Identification Service (active brokerage)
- Inward Investment Advice (identification of suitable partners with the IMD)
- 'Shop Window' (via website & case studies)
- Inward Trade Missions (identification of national attendees/key people for trade missions to meet)
- New Product Development / Identification (based on needs of TVEs)
- Outward market advice (based on needs of TVEs)

Initially the National/TVE Marketing Manager will need to further elaborate the marketing plan laid out in section 7 of the business plan, but equally create the materials required and organise the outreach workshops/events. The National/TVE marketing Manager should be able to carry out business development but also manage the resulting work. The National/TVE Marketing Manager will be responsible for the business development assistance and marketing programs during the UNIDO phase of the project and subsequently may recruit a TVE Business Development Advisor. The National/TVE Marketing Manager will recruit additional staff, with approval from PTPMC Director, as the business grows.

Requirements for role: The National/TVE Marketing Manager should have the following characteristics:

- 5+ years in similar membership services/marketing role

- Experienced in business development and account management with national companies, ideally TVEs
- Ideally some experience of technical projects, like Energy Efficiency or business development assistance
- Fluent in Mandarin, English a bonus
- Typically early 30's with ability to both develop business and implement projects
- Likely to be able to build up and lead the national membership services team

Timeline for hire: Recruitment process should start immediately after PTPMC is registered.

Proposed Initial Salary: US1000 per month

Technical Director (combining Project management, ESCO services and CDM)

Justification for role: A key need for PTPMC to grow its business is to assist TVEs in developing energy efficiency projects. There are two ways to do this: through attracting the interest of energy efficiency service companies which are just developing in China (under a World Bank project) and in certain cases to advise the TVEs directly on how best to carry out the feasibility studies required. To do this requires a full time Technical Director to work together with the TVEs in developing good EE projects. In time this role may be split depending on the relative workload of the two areas – negotiating with ESCO's or developing projects directly.

Reporting: reports directly to PTPMC Director

Description of role: The Technical Director's role is to ensure TVE's develop good EE projects and also to manage the relationships and project related contracts with the TVEs and ESCO service providers. The Technical Director manages the provision of the following services to TVEs/Members:

- Project Formulation / Identification
- Bid Evaluation / TVE Due diligence, working with the RCF Manager
- How to capture TVE requirements and match them with qualified product or service providers
- Post Implementation Monitoring / Due Diligence
- Energy Auditing
- Providing advice on CDM related aspects

Initially the Technical Director will need to support the implementation of the 8 pilot projects and the engineering service group contracts and build relationships with the TVEs who have the 100 or so pipeline projects. The Technical Director should also build strong links with existing ESCOs to get them to become PTPMC members. The Technical Director will recruit additional staff, with approval from PTPMC Director, as the business grows.

Requirements for role: PTPMC should select a Technical Director with the following characteristics:

- 10+ years in similar project development/ESCO role
- Experienced in all aspects of energy efficiency projects, ideally with experience in the four key sectors

- Fluent in Mandarin, English a bonus
- Typically early 30's with ability to both develop business and implement projects
- Likely to be able to build up and lead the project development team
- Experience or knowledge of CDM a plus

Timeline for hire: Recruitment process should start immediately after PTPMC is registered

Proposed Initial Salary: US2000 per month

Attachment 2. Pro-forma Statement of Availability

Project EG/CPR/99/G31

“Energy Conservation and GHG Emissions Reduction in Chinese TVEs – Phase II”

Title of Terms of Reference	
Current position of the person and employer's name:	
Position of the person in the proposed project:	

Statement of Availability

In the event of award of contract to PTPMC which has presented me as a candidate for the above project whose title is mentioned above, I, *<insert person's name>*, confirm my availability to provide services for the above-mentioned project according to the planned programme of activities and to be able and willing to work for all the period of implementation of the project as indicated in the attached Terms of Reference.

.....

Signature

.....

Date and place

ATTACHMENT 2: ESTIMATED COST BREAKDOWN

Cost assumptions (all in USD)

National rate per day	100
Flights (National)	400
Flights (International)	2500
Per diems (in China)	141
Assumed labour margin on conferences	20%