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Fifth Session

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Item 4 of the Provisional Agenda

Recent developments of the Global Energy Efficiency 21 project- Training course on financial engineering and business planning

Recent developments of the Global Energy Efficiency 21 project - Training Course on Financial Engineering and Business Planning

Background paper

Note by the secretariat

I. Introduction

1. The United Nations Economic Commission for Europe (UNECE) is executing the United Nations Development Account (UNDA) project “Promoting energy efficiency investments for climate change mitigation and sustainable development.” The objective of the project is capacity building for development of energy efficiency (EE) investment projects. It will assist UN Regional Commissions (RCs) to strengthen capacities of their member states to attract investments in energy efficiency projects in the context of climate change mitigation and sustainable development.

2. The project is to provide technical assistance to the national officials and experts through regional trainings (one course for each region) in project development, finance and business planning to educate participants on mentioned issues. This is indeed a critical activity since the policy-makers, other government officials as well as representatives of project developers, owners, private companies, banking community are not necessarily updated on the current of EE investment potential and challenges, which in turn might require particular regulatory, policy and structural measures to be the most effective in local conditions.

II. Specific characteristics of the training

3. The training will build local capacity and serve the needs of local experts to prepare investment projects, to appraise their knowledge of equity participation in projects, mezzanine and third party finance capacities. The training will bring to the experts knowledge on:

(a) **Financial engineering and business planning skills** to identify, select and develop energy efficiency and renewable energy investment projects and prepare bankable project proposals;

(b) **Business development skills** to prepare the equity and/or mezzanine finance participation of an investment fund in local companies, manufacturers of energy efficient technology, energy service companies or standing alone energy efficiency projects and to prepare the equity/mezzanine participation in renewable energy projects;

(c) **Full range of skills** described above and the capacity to develop further projects to a standard project identification format.

Functions: The training course on financial engineering and business planning will be conducted for selected participants based on a standard approach, materials and curriculum.

Tasks:

(a) **Conduct two training courses on financial engineering and business planning** for the selected project developers. The Training Course programme is enclosed in Annex 1. The project developer profile is presented in Annex 2;

(b) **Provide individual consultations** to the project developers based on the presented business plan and other project related information;

(c) **Assist project developers** in completion of the Standard Project Identification Form.

4. The training will be held in cooperation with the Economic and Social Commission for Asia and the Pacific (ESCAP) through two joint regional trainings for the project developers and owners, with participation of government officials and representatives of banking community, primarily for the countries that are Member States of both UNECE and ESCAP.

III. Tangible and measurable outputs of the training

1. Training course on financial engineering and business planning

Output 1: Implementation of training course in accordance with the training course programme and curriculum (annex I).

2. Individual consultations to the project developers

Output 2: Brief report on conduct of individual consultations with a number of project developers consulted summarizing major needs and requests from project developers.

3. Completion of Standard Project Identification Form

Output 3: Assistance to project developers with elements of the project identification form used during the training course.

Annex I

Programme of Training Course on Financial Engineering and Business Planning

Selection of the training participants

UNECE will identify and select training participants. Participants will be selected based on provided by them information and correspondence to the criteria of the project developer profile (see Annex 2).

Training Course Approach

<i>Step</i>	<i>Activity</i>
1	Solicitation of project proposals with agreed criteria and standard format
2	Transmission of proposals from project developers to participating countries
3	Initial technical and financial evaluation and selection of up to 5 proposals per country to be developed in the training course
4	Preliminary project descriptions for presentation to the training course
5	Training session on the technical and financial aspects of energy efficiency projects

Training Course Programme and Curriculum

Training Session 1

- Programme introduction
- Financial engineering and business planning; introduction to the process of initiating and developing a Business Plan, and the main content
- Profitability calculations; Payback, Pay-off, Net Present Value, Internal Rate of Return, calculations in nominal and real terms, and exercise and introduction of software/excel tool
- Project information; how to describe your project in a Business Plan
- Environmental benefits, including exercise and introduction of software/excel tool
- Financing plan, including exercise and introduction of software/excel tool to calculate disbursement and repayment plan
- Financial schemes and sources, including equity and mezzanine financing, etc
- Criteria and requirements of financial institutions
- Homework introduction - completion of technical parts of the proposal by trainee teams and advisory services by trainers

Training Session 2

- Presentation of completed technical parts of the proposal
- Market, how to describe in the Business Plan
- Project and company cashflow, including introduction of software/excel tool
- Financial projections, including cashflow, sensitivity and financial analysis
- Risk assessment; evaluation of the main risk elements of relevance for each project; incl. Borrower / sponsor risk, Completion risk, Technology risk, Input and Supply risk, Operation Risk, Approvals, Regulatory and Environmental risk, Off take and Sales risk
- Project implementation and management; how to organise project implementation and verification, roles and responsibilities, tendering procedures, time schedule
- Individual consultations on each project/Business Plan
- Financial schemes and sources (2); tailored to the meet the needs of the participants and the projects being developed
- Presentation techniques; how to present your project in a clear and understandable way – for the financial institutions/investors
- Individual consultations on each project/Business Plan
- Introduction for presentations to FCU/financing partners

Content of a Training Programme

Session 1

The main subjects to be presented at the classroom sessions are listed below:

- *Programme introduction*
- *Presentation of participants*
- *Financial engineering and business planning; introduction to the process of initiating and developing a Business Plan, and the main content*

Decision makers in banks have only a limited time to examine a proposed project before making their decision whether to proceed with the loan approval process. A badly presented or incomprehensible proposal stands the risk of being turned down without being fully examined. In order to overcome this problem, this seminar is designed to help potential project sponsors understand how to write a business plan and how to present it.

- *Profitability calculations; Payback, Pay-off, Net Present Value, Internal Rate of Return, calculations in nominal and real terms, and exercise and introduction of software/excel tool*
- *Project information; how to describe your project in a Business Plan*

If a project is at a very early stage and it is not yet completely clear how the project is to be structured, it can be both slow and potentially error-prone to begin by developing the plans for the project at the detailed level. In these circumstances, it can be a very useful technique to clarify the overall strategy for the project before developing the detailed plans.

- *Environmental benefits, including exercise and introduction of software/excel tool*

How the project will benefit the local and national economy and environment as well as your own commercial prospects. Some of the benefits that come from the project can be

directly quantified in money terms, such as savings in raw materials, fuel savings, reduced labour, etc. and some may be only indirectly quantifiable, including improved product quality or marketability, and which might produce a benefit in terms of increased sales. There may also be other benefits which are not quantifiable at all in money terms, but may have a bearing on the project. These include aspects such as safety, improved working conditions and environmental benefits.

- *Financing plan, including exercise and introduction of software/excel tool to calculate disbursement and repayment plan*

The financing plan sets out how the transaction costs will be met. Normally, the bank will be only one of several sources of financing. In fact, the bank will require the sponsor both to invest in the equity of the project and to identify other potential sources of financing.

- *Financial schemes and sources, including equity and mezzanine financing, etc*

The major types of finance include:

(i) **Project Owner's Own Resources:** The bank will require cash of at least 5% - 20% of the project costs. The bank is looking to see its own risk minimised and may look to the sponsor for further cash injections. The valuation of the in-kind contributions should be the actual current market value (re-sale value) and not historical costs;

(ii) **Supplier:** the supplier may extend credit for the purchase of necessary materials;

(iii) **Local loans:** for example, these loans may come from local banks or consumer credit institutions;

(iv) **Senior loans:** these generally include loans from local and international financial institutions such as the World Bank, the EBRD and international commercial banks;

(v) **Mezzanine loans:** these are designed to complement the owner's equity and complete the project's financing plan in case of equity shortage without diluting owner's shareholding;

(vi) **Foreign equity:** cash from other investors: these may be grants, cash contributions or new financial instruments, performance contracting, third party finance, or which are combination of debt and equity, such as convertible bonds or redeemable shares.

- *Criteria and requirements of financial institutions*

The basic requirements of the financial institutions to project documentation, technical, economic, financial and environmental viability of the project, its size, level of sponsor support, enforceability of contracts.

- *Homework introduction*

Session 2:

- *Plenary presentation of homework*
- *Market, how to describe in the Business Plan*

The purpose of this section is to describe the market of the company, its general characteristics, customers, competitors and factors affecting the growth of the market and the position of the company within the market.

- *Project and company cash flow, including exercise and introduction of software/excel tool*
- *Financial projections, including cash flow, sensitivity and financial analysis*

The project proposer's principal aim is to describe the financial viability of the project. The bank's major concern is that the cash flow from the project be amply sufficient to cover the total debt service (all payments of interest and balance of the loan). The strength of the cash flow indicates the financial viability of the project.

- *Risk assessment; evaluation of the main risk elements of relevance for each project*

In writing a business plan, the project owner must address the specific risks of the project with the aim of presenting a clear plan of how to overcome these risks, either by mitigation or by laying them off to other parties. Each project will have different kinds of risks and the magnitude of risks will differ from project to project. In general, however, there are key areas of risk which every proposer should be aware of and should keep in mind when planning to write a business plan. These key areas of risk are: Borrower/Sponsor risk, Pre-completion risk, Completion risk, Technology risk, Input or Supply risk, Operating Risk, Approvals, Regulatory and Environmental risk, Off take and Sales risk.

- *Project implementation and management; how to organise project implementation and verification, roles and responsibilities, tendering procedures, time schedule*

The bank will rely on the sponsor to implement directly, or to appoint contractors to implement, the project in a timely manner and in a cost-effective way. In order for the bank to assess the risks connected with the implementation of the project, the sponsor will be required to describe the arrangements for implementation which includes a description of the major components of the project, the names of the contractor in charge of each component and the reasons for selecting the particular contractor and its relevant track record.

- Presentation techniques; how to present your project in a clear and understandable way – for the financial institutions/investors
- Financial schemes and sources (2); tailored to the meet the needs of the participants and the projects being developed
- Individual consultations on each project/Business Plan
- Standard Project Identification Form Completion of the proposal

Training Materials, Publications and Software (English and Russian)

- CD-ROM containing principal standard documentation, templates and other relevant information on preparation of the bankable project proposals
- ECE Manual on Business Planning: How to Construct a Business Plan for Energy Efficiency Projects
- CEI-ECE Project Opportunity Methodology
- EBRD Guide to Energy Efficiency Bankable Proposals
- ECE Sources of Financing Energy Efficiency Projects in Central and Eastern Europe
- RFI Renaissance Finance International Ltd. Sources of Funds
- RFI Renaissance Finance International Ltd. Financial Proposals Introduction

Annex II

Requirements to Project Developers/Project Sponsors

Project Developers/Project Sponsors play a critical role of converting a business idea/opportunity into a commercially viable project.

There are a numbers of requirements, (by stakeholders, investors and authorities), which a Project Developer should meet in order to bring a project to a successful closure. There are certain aspects in the activities of the Project Developers in EE countries, which need an attention and support, in order to foster development of energy efficiency and renewable projects in the region, where UNECE assistance is needed.

A Project Developer should be able to organise, understand and provide adequate resources in the following stages of the project development, to make a project acceptable to other partners and investors:

Project Identification

- Identify business opportunity.
- Preparation of brief and clear summary of the business idea.
- Initial analysis of the technical and financial feasibility of the project.
- Initial analysis of the institutional and political support to the project.
- Initial analysis of the financial situation of the owners/sponsors.

Project Development

- Understand, select and provide/secure funds for establishing a legal entity/SPV/project entity, or establish the project within a corporate structure.
- Ensure institutional and political support to the project.
- Organise and provide legal advice and opinion on the project.
- Organise and secure the necessary permits, licences, concessions, off-take and supply contracts for establishing the project.
- Provide/secure specialists and funds for preparation of detailed Information Memorandum/Business Plan.
- Provide/secure funds for legal and financial due diligence.
- Understand requirements and provide/secure specialists and funds for technical feasibility studies and advice, including cost estimates, procurement/tendering documentation and negotiations with suppliers and contractors.

Financial Structuring

- Prepare Terms of Reference and select and appoint financial advisor/arranger to assist with establishing viable and optimal financial structure.
- Provide/secure adequate equity, or source appropriate instruments to complement the required equity.

- Understand and analyse the terms of the senior, subordinated debt and equity providers.
- Prepare and negotiate term sheets and draft contracts, agreements.

Financial Close

- Provide/secure appropriate legal advice and legal opinion.
- Negotiate and sign the legal, financial and all other necessary agreements and contracts.
- Provide/secure funds for payment of legal and financial fees.

Project Implementation

- Agree Terms of Reference and appoint Project Manager/Supervisor to lead the technical and financial implementation of the project.
- Organise, provide and ensure appropriate mechanisms and structures to supervise and implement the project.

Project Operation

- Agree with the other stakeholders the rules and modalities of operating the project.
 - Implement a transparent structure for technical and financial operation of the project.
 - Agree and implement a long term strategy for operating the project and/or exit strategy.
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