Standard Summary Project Fiche for the Transition Facility

1 Basic Information

1.1 CRIS Number: 2006/18111.01.01.

1.2 Title: Support to the development of energy audit practices

1.3 Sector: Internal market

1.4 Location: Estonia

2 Objectives

2.1 Overall Objective(s):
Rational use of energy in buildings through adequate accessibility of independent energy audit (building energy situation analysis) service in the market.

2.2 Project purpose:
Clear standards for the qualification of independent building energy experts created (energy auditors) and energy auditors certified.

2.3 Justification
Commission comprehensive monitoring report (November 2003), chapter 23:

*In the area of energy efficiency and renewable energy, legislative alignment has been largely completed. Framework legislation is in place and implementing legislation is largely in place and in line with the acquis. Estonia should transpose Directives on refrigerators and freezers on energy efficiency, and requirements for ballasts for fluorescent lightning. The newest acquis should be transposed according to the timetables laid down in the directives. The Ministry of Economic Affairs and the Technical Inspectorate, a body functioning under the Ministry as the main institution, are in place but need to be strengthened. The Energy Efficiency Target Programme and implementation plan were adopted in 2000/2001.*

An overview of existing acquis is given in Annex 4. The project should streamline transposition of the energy performance of buildings directive (2002/91/EC).
3 Description

3.1 Background and justification:

### 3.1.1 Legal and administrative framework (EU)

Buildings are major consumers of energy. Around 40% of final energy consumption in the European Community is in the buildings sector. In Northern Europe countries like Estonia the share of building energy demand in total final energy consumption is even higher. The total annual building energy consumption in Estonia is not known, but is roughly estimated to 12800 GWh/year, which is ca 45% of total final energy consumption in Estonia.

Studies have indicated that by improving energy efficiency, carbon emissions from buildings could be significantly reduced. The European Commission’s Action Plan on Energy Efficiency (2000) indicated the need for specific measures in the building sector. In response, the European Commission (EC) published the proposed Directive on The Energy Performance of Buildings (EPBD, 2002/91/EC) in May 2001. The European Parliament and Council signed the agreed text of the EPBD at Energy Council on 25 November 2002. The EPBD was published in EU Official Journal on 4 January 2003. The directive sets an obligation for the Member States (MS) to adopt common framework to promote the improvement of the energy performance of buildings, the elements of this framework are:

- methodology for calculating the energy performance of buildings;
- application of performance standards on new and existing buildings;
- certification schemes for all buildings;
- regular inspection and assessment of boilers/heating and cooling installations.

The energy performance calculation methodology should include all the aspects which determine energy efficiency and not just the quality of the building's insulation. This integrated approach should take account of aspects such as heating and cooling installations, lighting installations, the position and orientation of the building, heat recovery, etc.

The minimum standards for buildings are calculated on the basis of the above methodology. The Member States are responsible for setting the minimum standards.

Energy performance certificates should be made available when buildings are constructed, sold or rented out. According to the EPBD, qualified and independent energy experts should carry out the certification and inspection of buildings.

The Directive must be implemented by MS before January 2006. There is an additional 3-year period to allow MS to apply the provisions of Articles 7 (Energy Performance Certificates), Article 8 (Inspection of Boilers) and Article 9 (Inspection of Air Conditioning Systems). This allows MS to develop suitable energy rating systems and certification schemes, as well as to carry out preparatory activities to ensure the accreditation and training of sufficient personnel to undertake the energy performance assessments (energy audits or energy certification).

The EPBD is a complementary measure to one of earlier EU Directives (93/76/EEC, SAVE Directive), which has a goal to limit carbon dioxide emissions and promote the rational use of energy in those economic sectors in the European Community, which consume the most energy in order to preserve the quality of the environment. In
practice, the implementation of SAVE directive was not a success in EU MS, as the measures of the directive were vaguely defined. The SAVE Directive requested MS to design their national plans to promote rational use of energy, but their implementation was unsatisfactory.

To fulfil the requirements of SAVE directive, Estonia developed its Energy Efficiency Target Programme (EETP) and its Implementation Plan. According to the Implementation Plan of EETP, the Ministry of Economic Affairs and Communications (MoEAC) had a task to develop methods on energy certification of buildings and find a solution for energy auditing of buildings. Project-based activities under this task have delivered general recommendations for the energy auditing activities, sufficient to shape general understanding on building energy audit service on the market. Today, there are 5 - 10 individuals or companies providing building energy audit services in Estonia. Besides these professionals a number of newcomers have started or are interested to run building energy audit business. However, lacking qualification standards do not favour quality growth, but will result in lower prices and perfunctory audit service.

Although an estimated technical potential of energy saving in buildings is 25%, implementation of EPBD would result in energy savings being around 2-5% of total energy consumption in buildings\(^1\).

### 3.1.2 Legal and administrative framework (Estonia)

The EPBD was discussed in the Government on 18. August 2005. The minister of Economic Affairs and Communications introduced a plan for the harmonisation of the EPBD and the debate was concluded with main principles of EPBD harmonisation. The plan outlines list of activities necessary for the implementation of EPBD. The activities can be categorised as:

- updating the regulation, particularly the Building Act and its subordinate regulations;
- program-based activities, with or without support from state budget, like performing energy audits in public buildings or in apartment buildings, or inspection of boilers and air conditioners;
- other activities which support the EPBD implementation, or create favourable environment for it.

There are two laws that regulate qualification requirements and attestation principles for persons offering their services in building services’ market. While the Building Act states requirements for the undertakings (companies) and qualification of individuals, the Professions Act provides the legislative basis for the development of the requirements for professional qualifications and the conditions and procedure for the attestation and award of professional qualifications.

The Building Act lists a limited set of undertaking types that should fulfil special requirements of the Building Act. Usually these special requirements foresee registration need in the Register of Economic Activities, and oblige the undertaking to

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\(^1\) “Assistance to the MoEAC in implementing the EU-Directive on energy performance of buildings”, final report, RAMBOLL-EnPro, Sept 2004
have one specialist in charge. A specialist in charge is a person who should be competent to manage and inspect building, design, carry out site investigations, perform owner supervision, expert assessments of building design documentation, evaluation of construction works or project management activities depending on the type of undertaking. He/she must hold professional qualifications within the meaning of the Professions Act.

Typically, professional qualification can be assigned if the person has sufficient training/education and has passed all necessary examinations/test assignments. Professional councils attest the professional qualifications. The representatives of employees, employers and professional associations of the corresponding area of activity and the representatives of the state may establish a professional council.

### 3.1.3 Justification for the project/Gaps

The implementation of EPBD has a very widespread effect. There are approximately 600,000 households in Estonia; most people are living in apartment buildings. Total number of apartment buildings in Estonia is ca 21,000. There are ca 2,800 apartment buildings larger than 1,500 m².

Usually housing cooperatives or apartment associations manage the apartment buildings; apartment owners can establish these non-profit organisations. There are not many limitations to become a member of the management board in apartment association. Often the people in the management board do not have sufficient technical competence on building management and additional expertise in the development of management plans is definitely needed. Energy audits and energy certification of buildings may deliver valuable recommendations for the building management plan. These recommendations should be in line with minimum energy performance requirements (should be an element of the legislation, but they should be designed).

The number of public buildings and buildings with public access falling into the scope of EPBD is also remarkable – more than 15,000 are larger than 1,000 m². If all public buildings should have energy performance certificate within 10 years, there should be at least 15 active energy auditors. If other buildings with public access are included, too, additional 35 independent experts are needed. Considering energy audit needs in private sector, especially in apartment buildings and office buildings constructed during the Soviet period, the need of auditors is even higher.

During past years the real estate market has become very active, every year ca 40,000 sales contracts are made with buildings or their parts that might be subject to the energy certificate disclosure requirement of EPBD. If this volume of sales contracts will not change, more than 200 experts are needed to perform energy certification.

As the market of energy audits is still relatively liberal, the quality of energy audit service is fluctuating. Before any requirements will be introduced in the legislation, good and clear practices should be determined. There are not clear standards for the services provided within the frame of an energy audit. Development of professional standard for energy auditors needs coordination with design of practices and standards for the energy audits.

Prior to the submission of the project, the MoEAC had brief consultations on the main objectives with the following stakeholders:
- Tallinn University of Technology;
- Estonian Union of Co-operative Housing Associations;
- Estonian Society of Heating and Ventilation Engineers;
- SA KredEx.

Transition Facility programme is considered to be the best and only possibility to cover current project and activities. Energy sector is not eligible from Structural Funds under measures that cover the Ministry of Economic Affairs and Communications and measure 4.2 of SPD under the Ministry of the Environment covers mainly the renewable energy sector.

The beneficiary and Estonian authorities will prevent any possible overlap with EU funding, in particular Structural and Cohesion funds (SPD 2004, SPD 2007, respective TA funds, grant schemes, EEA grants, etc).

3.2 Linked activities:

Project No: 2003/005-026.10.03 “Support to energy efficiency investments in municipalities”

Amount: 2 175 000 EUR

Duration: January 2005...

The purpose of the ongoing project is to achieve increased energy efficiency in municipalities, decreased levels of CO₂ and SO₂ emissions and promotion of renewable energy resources due to the application of environmentally sound, reliable technologies and renovation methods in local public facilities. The project encouraged municipalities to carry out energy audits in public facilities. The project will provide grants to municipalities for the energy efficiency based on open call and evaluation of proposals.

Project No: 2136/01053-0014 “Assistance to the MoEAC in implementing the EU-Directive on energy performance of buildings”

Amount: 1 493 102 DKK

Duration: August 2003 - September 2005

The project objectives were to provide background information and recommendations for MoEACs on application of EPBD. The project team

- assessed the building stock in Estonia;
- defined the models for energy audits schemes;
- described models for institutional set-up, estimated the costs of an energy audit process;
- analysed the effect of different auditing models and models for financing of the energy audit scheme;
- estimated the need for additional incentives, analysed the situation in financial market;
- provided recommendations for further action.

Project No: 2136/01053-0014 EU-SAVE project- Estonia Phase II: Education of auditors and development of tools

Amount: 551,580

Duration: January 2002 - April 2003

The goals of this project were to establish an initial good practice for building energy auditing in Estonia, describe elements of the good practice and to carry out a pilot course for energy auditors. 28 persons were trained by Tallinn Technical University (today: Tallinn University of Technology).

Other

The project is closely linked with ongoing MoEAC initiatives of Building Register Development and technical studies essential for the development of auditing practices. The topics of these studies are the historic dynamics of domestic hot water use in Estonian households and use of degree-days in normalisation of energy use.

3.3 Results:

3.3.1 Developed professional standard of building energy auditors, which differentiates:

3.3.1.1 persons eligible to carry out energy certification of buildings (energy certifiers);

3.3.1.2 persons eligible to carry out energy auditing of buildings (energy auditors).

3.3.2 Developed training programme and training materials for energy certifiers

3.3.2.1 Performed training course for persons providing training courses to energy certifiers (10 educated trainers of energy certifiers)

3.3.3 Developed training programme and renewed training materials for energy auditors, that includes:

3.3.3.1 renewed requirements for the form and procedure of an energy audit;

3.3.3.2 proposal for the minimum energy performance requirements of external walls, roofs or insulated ceilings, windows, doors (for existing and new buildings).

3.3.4 Performed training course for persons interested in obtaining the qualification of energy auditor (30 educated energy auditors)

3.3.5 Recommendations for the organisation of training courses and attestation procedures of building energy auditors in future

2 The indicators of the results are confirmed to be quantified and measurable. For indicators please see Annex 1 - logframe.
3.4 **Activities:**

The project results should be delivered by the Technical Assistance and Local Project Leader.

<table>
<thead>
<tr>
<th>3.4.1 Technical Assistance (TA) contract (TF 250 000 EUR)</th>
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</table>

Main tasks to be performed in the frame of the TA contract are:

1) evaluation of commonly used energy audit practices in Estonia (based on existing energy audit reports, leading methodology in Europe and according to conditions and requirements of Estonia);

2) assessment of generally needed deliverables of the energy audits;

3) evaluation of energy certification practices and preparation of a proposal for certification methodology in Estonia;

4) development of the professional standard of building energy auditors and building energy certifiers;

5) preparation of training programme for the energy auditors and energy certifiers;

6) preparation of training programme for trainers of energy certifiers;

7) compilation of the Terms of Reference for a service component under the TA contract;

8) preparation of training materials for energy auditors and energy certifiers, conducting a training course for energy auditors;

9) carrying out a training course for trainers of energy certifiers;

10) evaluation of existing requirements for the design and insulation of building constructions and building services (heating, ventilation and air conditioning systems), relevant comparisons (based on leading methodology in Europe and according to conditions and requirements of Estonia);

11) drafting a proposal for minimum energy performance requirements for Estonia;

12) reporting.

The TA provider must confirm and demonstrate that the project team has the skills and experience needed to carry out the tasks in the frame of TA contract, in accordance with the requirements listed below:

- the core team must consist of at least 2 experts with each at least 5 years experience of working with building energy issues. The experts must demonstrate more than general knowledge in covering building energy issues, earlier experience with energy auditing and analysis or development of building energy standards would be an advantage;

- experience in preparation and implementation of training programmes;

- familiarity with EPBD harmonisation activities and earlier cooperation experience with public authorities would be an advantage;

- professional experience in project management;
- all members of the team should have good English skills, as English will be the working language and is the language of the deliverables to be issued.

### 3.4.2 Local Project Leader (LPL)

Main tasks of the local project leader include:

1) supporting Technical Assistance in its activities, particularly in following activities:

2) preparations for the course of energy auditors (evaluation of commonly used energy audit practices in Estonia, providing overview on status of energy certification, assessment of generally needed deliverables of the energy audits, development of the professional standard of building energy auditors);

3) analysis of drafted training materials, making proposals for their improvement;

4) preparation of input for the evaluation of existing energy performance requirements;

5) participation in organisational arrangements for the training course of building energy auditors, drafting the pre-qualification criteria for the course candidates (for potential energy auditors as well as for trainers of energy certifiers);

6) drafting the recommendations for the organisation of training courses and attestation procedures of building energy auditors in future.

Local project leader may use assistance of other local experts.

Profile of LPL:

- higher education;
- higher education in civil or mechanical engineering-related disciplines or remarkable practical knowledge and working experience in mentioned field;
- professional experience in project management;
- good leadership skills;
- fluent in Estonian and English;
- academic background would be an advantage;
- computer skills.

### 3.4.3 A summary of core activities of the TA and LPL

#### 3.4.3.1 Inception phase, preparation of detailed work plan. During this stage, an overview on status of EPBD harmonisation, on existing building stock and building energy auditing practices should be created.

*Activities necessary for setting the professional standard of building energy auditors (result 3.3.1)*

The activities required for setting the professional standard are determined by regulation\(^3\) and they are following:

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\(^3\) RTL 2004, 25, 401
3.4.3.2 preparation of motivated proposal for the professional standard of building energy auditors;
3.4.3.3 presentation of the proposal for the professional standard of building energy auditors to the Professional Council and relevant stakeholders in a seminar;
3.4.3.4 development of the professional standard of building energy auditors that fulfils the criteria for a professional standard set by the regulation;
3.4.3.5 on-demand presentation of the proposal for a professional standard for building energy auditors to relevant stakeholders (LPL provides).

Activities necessary for designing a proposal for minimum energy performance requirements (result 3.3.3.2)

3.4.3.6 evaluation of existing requirements for the design and insulation of buildings and designing a proposal for minimum energy performance requirements;
3.4.3.7 seminar on minimum energy performance requirements in Estonia and relevant European practice.

Preparation of training programme and training materials for building energy auditors (result 3.3.3), carrying out the training course (result 3.3.4)

3.4.3.8 evaluation of existing energy auditing practices in Estonia;
3.4.3.9 development of the requirements for the form and procedure of an energy audit (result 3.3.3.1);
3.4.3.10 development of training programme for the energy auditors and coordinating the preparation of training materials;
3.4.3.11 preparation of pre-qualification criteria for the course candidates;
3.4.3.12 conducting 2-days workshop on energy auditing practices (together with workshop on building energy certification methods, 3.4.3.16) [for 20 persons];
3.4.3.13 public call for course candidates;
3.4.3.14 preparation of training materials and carrying out the training course(training of 30 energy auditors):

The training programme and training materials should cover following items: building constructions, heating systems, end user installations, ventilation and consumption of electricity. The training materials should be primarily focussed on energy auditing of apartment buildings and typical public buildings. There should be a possibility to include future modules in accordance with the future needs. The main principle should be that the auditors should target approximately 75% of the energy saving potential using standard measures, conducting a checklist audit according to predefined form and procedural requirements. The development of training materials includes also preparation of relevant presentations for the training course.

The material should include technical issues (heat losses, combustion, ventilation, etc), methods (audit procedure, forms, checklists, the energy plan), typical energy
saving measures, calculation of energy savings, financial analysis for the energy plan and introduction to energy certification of buildings. A set of small multi-choice tests and materials for final examination will be developed for the course.

**Preparation of training materials for the course of energy certifiers and training of potential trainers (result 3.3.2)**

3.4.3.15 evaluation of energy certification practices and preparation of a proposal for certification methodology in Estonia, considering the materials designed for the training course of energy auditors (core activity 3.4.3.14);

3.4.3.16 workshop on building energy certification methods (see also 3.4.3.12)

3.4.3.17 development of training programme for the energy certifiers and preparation of training materials;

3.4.3.18 providing training to potential trainers of energy certifiers (result 3.3.2.1) [10 trainers for building energy certifiers are trained]

**Designing the recommendations for the organisation of training courses and attestation procedures of building energy auditors and certifiers in future (result 3.3.5)**

3.4.3.19 drafting the proposal for a statutes of the professional qualifications committee which set out the responsibility, rights, membership, formation, rules of procedure and competence of the committee performing the attestation of building energy auditors;

3.4.3.20 designing the recommendations for the organisation of training courses in future;

3.4.3.21 1-day workshop on further training and attestation practices of building energy auditors targeted to leaders of organisations performing attestation and awarding of professional qualifications (10 persons)
3.5 Lessons learned:

The Ministry of Economic Affairs and Communications (MoEAC) has extensive practice with international co-operation, before the enlargement projects in energy sector were actively supported by Denmark. Every year 5-10 projects were carried out in co-operation of Danish Energy Authority and Ministry of Economic Affairs and Communications, total annual budgets of the projects were 0.6 – 1.0 MEUR.

In energy efficiency field, past experience has been gained with couple of projects. From the PHARE “Project Preparation, Training and Management Facility” project (2002/000-266.01.01) a proposal by MoEAC “Evaluation and design of support measures in Energy sector” was supported. The project outlined multiple options for promotion of energy efficiency measures in Estonia, giving clear message on high energy saving potential in Estonia and suggested several ways to achieve it.

The conclusions of earlier projects – “Investment Preparation Facility, Regional Development and Energy Planning” (Phare project ES9617 Contract 98/00/22-00) and Regional Energy Centers in Estonia (Phare project ES-96.17.02.01) – highlighted continuous need for energy efficiency promotion.

Other projects initiated by MoEAC have stimulated to put more focus on programming of the projects. It is essential to compile a logical project proposal (identifying the problems, set realistic objectives, results, activities, management organisation, objectively verifiable indicators, monitoring). After the proposal has been considered acceptable, the tendering should be as smooth as possible. In conclusion, the project implementation process should not be hindered anyway. Therefore the preparatory work (as drafting tender documents) should be done on time. It is important that local and external experts work very closely from the beginning including the phase of covenant drafting.

4 Institutional Framework

The Ministry of Economic Affairs and Communications (MoEAC) is responsible for the programming of the project. The Ministry also provides resources for the co-ordination, consolidation and monitoring of the project (within the Foreign Co-operation Projects Division of the Foreign Funding Department of the MoEAC).

Main beneficiaries of the project are two departments of MoEAC, namely:

- Energy Department;
- Housing and Building Department.

The project is being prepared and co-ordinated in the Energy Department. The main function of the department is the elaboration of national development plans in energy sector and programmes for effective, competitive and environment friendly fuel and energy sector and to guarantee their implementation. There are 10 officials employed in the department. There are two divisions in the department: Fuel and Energy Market Division and Energy Efficiency and Renewables Division. To ensure adequate staffing, a Local Project Leader will be hired.
## Detailed Budget

<table>
<thead>
<tr>
<th>TF Support (EUR)</th>
<th>National Co-financing</th>
<th>IFI</th>
<th>TOTAL</th>
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</thead>
<tbody>
<tr>
<td>Investment Support</td>
<td>Institution Building</td>
<td>Total TF (I+IIB)</td>
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<tr>
<td>Technical Assistance</td>
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<tr>
<td></td>
<td>Beneficiary Project Leader (LPL)</td>
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<td></td>
<td>Seminar of professional standards</td>
<td>2 000</td>
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<td></td>
<td>Workshop on energy auditing practices and energy certification</td>
<td>4 000</td>
<td>4 000</td>
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<tr>
<td></td>
<td>Workshop on further training and attestation practices of building energy auditors and building energy certifiers</td>
<td>2 000</td>
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<td></td>
<td>Final event</td>
<td>2 000</td>
<td>2 000</td>
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<tr>
<td></td>
<td>Workshop premises, premises for trainers of energy certifiers, translation and interpretation, local transport etc</td>
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<td></td>
<td>Audit</td>
<td>6 000</td>
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<td></td>
<td>Contingencies (2.5 %)</td>
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<td>6 000</td>
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<tr>
<td>Total</td>
<td>250 000</td>
<td>250 000</td>
<td>37 000</td>
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The co-financing is planned from the 2006-2007 budget of MoEAC as follows:

<table>
<thead>
<tr>
<th>National Co-financing (MEUR)</th>
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<tr>
<td></td>
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<tr>
<td>1. Contract</td>
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<tr>
<td>Total</td>
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</tbody>
</table>

The amounts for co-financing indicated in the table for TA contract correspond to parallel co-financing. In addition, in-kind contributions from the Estonian administration for effective implementation of the TA may be further detailed in the work plan for TA/Terms of references.

The co-financing expenses will be monitored by the beneficiary and the NAO. For the earmarked co-finance, a clear and verifiable set of costs will be provided. The beneficiary will define which budget lines are the source for co-financing. Flow and stock data on co-finance will be submitted quarterly for steering committees, twice a year to the Sector Monitoring Working Group.

The beneficiary, together with the NAO commits to sound financial management and financial control.

6 Implementation Arrangements

6.1 Implementing Agency

The implementing agency is the Ministry of Finance, the Central Financing and Contracting Department (CFCD). The CFCD will be responsible for tendering and contracting. The responsibility for project preparation, implementation and control will remain in the recipient institution.

Programme Authorizing Officer:
Name: Mr Renaldo Mändmets
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Programme Officer:
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Title: Head of Foreign Funding Department
Institution: Ministry of Economic Affairs and Communications
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Fax: +372 6313 660
E-mail: eero.pargmae@mkm.ee
Project manager:

The Local Project Leader (LPL) will be the project manager; he/she will be recruited before the start of the project.

The Project Steering Committee will be established with the representatives from the Ministry of Finance, Ministry of Economic Affairs and Communications (MoEAC), SA KredEx, Estonian Association of Cooperative Housing and other related counterparts. The Steering Committee has the overall managerial responsibility as well as co-ordination function and it meets once in a quarter to summarize and evaluate the results, to approve courses and activities carried out by TA provider.

To secure smooth development of the project and assure relevant links with local national officials the national Project co-ordinator will be appointed by the MoEAC before the start of the project. The Local Project Leader will be responsible on a daily basis for the implementation of the whole project (technical assistance + supply). The MoEAC also prepares the working space and all necessary office support to TA provider’s team, for its long-term experts as well as for short-term experts. The rooms for seminars will be arranged by MoEAC, too. Local Project Leader provides daily management and assists the TA provider’s team with her/his technical aid and supply responsibilities. The realization of the project will be the responsibility of the MoEAC in co-operation with the leader of TA provider’s team.

6.2 Technical Assistance

A leader of TA provider’s team in close co-operation with the MoEAC will elaborate the detailed work plan for TA.

Beneficiary institution: Ministry of Economic Affairs and Communications
Contact person: Mrs. Kati Kõrbe
Title: Director of Housing and Building Department
Address: Harju 11, 15072 Tallinn, Estonia
Phone: +372 6256 394
Fax: +372 6313 660
E-mail: kati.korbe@mkm.ee

Beneficiary institution: Ministry of Economic Affairs and Communications
Contact person: Mr Madis Laaniste
Title: Head of Energy Efficiency and Renewables Division
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Phone: +372 6256 497
Fax: +372 6313 660
E-mail: madis.laaniste@mkm.ee

6.3 Non-standard aspects

No non-standard aspects are foreseen.

6.4 Contracts

Contract 1: Technical Assistance: 287 000 EUR (250 000 EUR TF + 37 000 EUR co-financing)
7 Implementation Schedule

7.1 Start of tendering/call for proposals
October 2006

7.2 Start of project activity
February 2007

7.3 Project Completion
February 2008

8 Sustainability

Planned revision of the Building Act will create two new building-related activity types subject to special requirements – building energy auditing and building energy certification. The profession of energy auditor and energy certifier will be attested according to the Professions Act. If the Ministry of Education and Science has not appointed a professional council, and there are special requirements for an activity in the law, the Professions Act gives a mandate to appoint a ministry to carry out the attestation activities. However, the MoEAC is in favour of attestation performed by Professional Council run by NGO’s.

There is a high need for the building energy demand experts due to drastic heat price increase, the training activities will certainly continue and training materials for building energy auditors and energy certifiers will be in active use. Providing training to potential trainers of energy certifiers is a certain factor for continuity (10 educated trainers of energy certifiers).

9 Conditionality and sequencing

The following conditionalities shall be fulfilled before the project starts:

- Local Project Leader is recruited by the MoEAC before the start of the project;
- an organisation interested in performing the attestation of energy auditors has been found through public consultation and relevant Professional Council has been formed for May 2006.

Sequences of the project activities are the following:

- Local Project Leader (LPL) from the MoEAC must introduce the work of the MoEAC and the work plan draft to the TA project team to start with the actual work as soon as possible;
- analyses of existing building energy auditing practices and design of professional standard for the building energy auditors should be started as soon as possible;
- designing of minimum energy performance requirements should start as soon as possible;
- at the end of the project proposals of building energy auditor professional standards and minimum energy performance requirements have been designed. Relevant training materials are in use;
- course candidates are selected before the training courses.

The project will not be started until preconditions are met.

**Annexes to project Fiche**

1. Logical framework matrix in standard format
2. Detailed implementation chart
3. Contracting and disbursement schedule by quarter for full duration of programme (including disbursement period)
4. List of relevant Laws and Regulations
## 1. TF logframe

<table>
<thead>
<tr>
<th>LOGFRAME PLANNING MATRIX FOR Project</th>
<th>Programme name and number</th>
</tr>
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<tbody>
<tr>
<td><strong>Support to the development of energy audit practices</strong></td>
<td></td>
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<tr>
<td><strong>Overall objective</strong></td>
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<tr>
<td>Rational use of energy in buildings through adequate accessibility of independent energy audit (building energy situation analysis) service in the market.</td>
<td></td>
</tr>
<tr>
<td><strong>Objectively verifiable indicators</strong></td>
<td><strong>Sources of Verification</strong></td>
</tr>
<tr>
<td>Number of energy audit service providers has increased</td>
<td>1. Register of Economic Activities</td>
</tr>
<tr>
<td><strong>Project purpose</strong></td>
<td></td>
</tr>
<tr>
<td>Clear standards for the qualification of independent building energy experts created (energy auditors) and energy auditors certified.</td>
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<tr>
<td><strong>Objectively verifiable indicators</strong></td>
<td><strong>Sources of Verification</strong></td>
</tr>
<tr>
<td>Compliance to EU standards on building energy performance assessment</td>
<td>1. Legal acts and procedures</td>
</tr>
<tr>
<td>Clear requirements for the service (energy audit, energy certification) providers, transparent attestation mechanisms</td>
<td>2. Register of professions</td>
</tr>
<tr>
<td></td>
<td>3. Performed energy audits</td>
</tr>
<tr>
<td><strong>Results</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Objectively verifiable indicators</strong></td>
<td><strong>Sources of Verification</strong></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Contracting period expires: 15/12/2008
Disbursement period expires: 15/12/2009
Total budget: 287,000 EUR
TF budget: 250,000 EUR
3.3.1 Developed professional standard of building energy auditors, which differentiates:
   3.3.1.1 persons eligible to carry out energy certification of buildings (energy certifiers);
   3.3.1.2 persons eligible to carry out energy auditing of buildings (energy auditors).

3.3.2 Developed training programme and training materials for energy certifiers
   3.3.2.1 Performed training course for persons providing training courses to energy certifiers

3.3.3 Developed training programme and renewed training materials for energy auditors, that includes:
   3.3.3.1 renewed requirements for the form and procedure of an energy audit;
   3.3.3.2 proposal for the minimum energy performance requirements of external walls, roofs or insulated ceilings, windows, doors (for existing and new buildings).

3.3.4 Performed training course for persons interested in obtaining the qualification of energy auditor

3.3.5 Recommendations for the organisation of training courses and attestation procedures of building energy auditors in future

<table>
<thead>
<tr>
<th>Activities</th>
<th>Means</th>
<th>Cost (EUR)</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Professional standard for energy auditors is developed</td>
<td></td>
<td></td>
<td>- Effective co-operation and communication between all involved parties;</td>
</tr>
<tr>
<td>2. Materials for energy auditors and energy certifiers course are provided</td>
<td></td>
<td></td>
<td>- Full commitment of both MS and Estonian experts is necessary for effective</td>
</tr>
<tr>
<td>3. Training courses for 30 building energy auditors are performed</td>
<td></td>
<td></td>
<td>implementation of the project.</td>
</tr>
<tr>
<td>3. Proposal for minimum energy performance requirements is made</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4. A training course for 10 potential trainers of energy certifiers are</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>provided</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. project report</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. developed training materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. statistics and surveys</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.4.1 Technical Assistance (TA) contract (Total 283 000 EUR)

- **Main tasks:**

1. evaluation of commonly used energy audit practices in Estonia (based on existing energy audit reports, leading methodology in Europe and according to conditions and requirements of Estonia);
2. assessment of generally needed deliverables of the energy audits;
3. evaluation of energy certification practices and preparation of a proposal for certification methodology in Estonia;
4. development of the professional standard of building energy auditors and building energy certifiers;
5. preparation of training programme for the energy auditors and energy certifiers;
6. preparation of training programme for trainers of energy certifiers;
7. compilation of the Terms of Reference for a service component under the TA contract;
8. preparation of training materials for energy auditors and energy certifiers, conducting a training course for energy auditors (service contract under TA);
9. carrying out a training course for trainers of energy certifiers;
10. evaluation of existing requirements for the design and insulation of building constructions and building services (heating, ventilation and air conditioning systems), relevant comparisons (based on leading methodology in Europe and according to conditions and requirements of Estonia);

<table>
<thead>
<tr>
<th>Technical Assistance</th>
<th>TF 250 000</th>
<th>Estonia 37 000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Assistance team</td>
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<td></td>
</tr>
<tr>
<td>Beneficiary Project Leader (LPL)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seminar of professional standards</td>
<td></td>
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</tr>
<tr>
<td>Workshop on energy auditing practices and energy certification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshop on further training and attestation practices of building energy auditors and building energy certifiers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final event</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshop premises, premises for trainers of energy certifiers, translation and interpretation, local transport etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contingencies (2.5 %)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11. drafting a proposal for minimum energy performance requirements for Estonia;

12. reporting.

3.4.2 Local Project Leader (LPL, financed by Estonia: 25 000 EUR)

- Main Tasks:
1. supporting Technical Assistance in its activities, particularly in following activities:
2. preparations for the course of energy auditors (evaluation of commonly used energy audit practices in Estonia, providing overview on status of energy certification, assessment of generally needed deliverables of the energy audits, development of the professional standard of building energy auditors);
3. analysis of drafted training materials, making proposals for their improvement;
4. preparation of input for the evaluation of existing energy performance requirements;
5. participation in organisational arrangements for the training course of building energy auditors, drafting the pre-qualification criteria for the course candidates (for potential energy auditors as well as for trainers of energy certifiers);
6. drafting the recommendations for the organisation of training courses and attestation procedures of building energy auditors in future.

3.4.3 A summary of core activities of the TA

3.4.3.1 Inception phase, preparation of detailed work
plan. During this stage, an overview on status of EPBD harmonisation, on existing building stock and building energy auditing practices should be created.

**Activities necessary for setting the professional standard of building energy auditors (result 3.3.1)**

- 3.4.3.2 preparation of motivated proposal for the professional standard of building energy auditors;
- 3.4.3.3 presentation of the proposal for the professional standard of building energy auditors to the Professional Council and relevant stakeholders in a seminar;
- 3.4.3.4 development of the professional standard of building energy auditors that fulfils the criteria for a professional standard set by the regulation;
- 3.4.3.5 on-demand presentation of the proposal for a professional standard for building energy auditors to relevant stakeholders (LPL provides).

**Activities necessary for designing a proposal for minimum energy performance requirements (result 3.3.3.2)**

- 3.4.3.6 evaluation of existing requirements for the design and insulation of buildings and designing a proposal for minimum energy performance requirements;
- 3.4.3.7 seminar on minimum energy performance requirements in Estonia and relevant European practice.

**Preparation of training programme and training materials for building energy auditors (result 3.3.3), carrying out the training course (result 3.3.4)**

- 3.4.3.8 evaluation of existing energy auditing practices in Estonia;
3.4.3.9 development of the requirements for the form and procedure of an energy audit (result 3.3.3.1);
3.4.3.10 development of training programme for the energy auditors and coordinating the preparation of training materials;
3.4.3.11 preparation of pre-qualification criteria for the course candidates;
3.4.3.12 conducting 2-days workshop on energy auditing practices (together with workshop on building energy certification methods, 3.4.3.16) [for 20 persons];
3.4.3.13 public call for course candidates;
3.4.3.14 preparation of training materials and carrying out the training course (educating of 30 energy auditors)

Preparation of training materials for the course of energy certifiers and training of potential trainers (result 3.3.2)

3.4.3.15 evaluation of energy certification practices and preparation of a proposal for certification methodology in Estonia, considering the materials designed for the training course of energy auditors (core activity 3.4.3.14);
3.4.3.16 workshop on building energy certification methods (see also 3.4.3.12)
3.4.3.17 development of training programme for the energy certifiers and preparation of training materials;
3.4.3.18 providing training to potential trainers of energy certifiers (result 3.3.2.1) [10 trainers for building energy certifiers are trained]

Designing the recommendations for the organisation of training courses and attestation procedures of building energy auditors and certifiers in future (result 3.3.5)
3.4.3.19 drafting the proposal for a statutes of the
professional qualifications committee which set out the responsibility, rights, membership, formation, rules of procedure and competence of the committee performing the attestation of building energy auditors;

3.4.3.20 designing the recommendations for the organisation of training courses in future;

3.4.3.21 1-day workshop on further training and attestation practices of building energy auditors targeted to leaders of organisations performing attestation and awarding of professional qualifications (10 persons)

<table>
<thead>
<tr>
<th>Total</th>
<th>Total</th>
<th>Preconditions</th>
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</thead>
<tbody>
<tr>
<td>250 000</td>
<td>37 000</td>
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</table>
ANNEX 2

Time Implementation Chart

Project No:
Support to the development of energy audit practices

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<thead>
<tr>
<th></th>
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<th></th>
<th>2007</th>
<th></th>
<th>2008</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>TA Contract</td>
<td></td>
<td>T T T</td>
<td>C I I I I I I I I I I I</td>
<td>I I I I I I I I I</td>
<td></td>
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</tbody>
</table>


ANNEX 3 A

Cumulative Contracting Schedule

Project No:
Support to the development of energy audit practices

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th></th>
<th></th>
<th></th>
<th>2007</th>
<th></th>
<th></th>
<th></th>
<th>2008</th>
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<tbody>
<tr>
<td></td>
<td>31.03</td>
<td>30.06</td>
<td>30.09</td>
<td>31.12</td>
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<td>30.06</td>
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<td>31.12</td>
<td>31.03</td>
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<td>250 000</td>
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</tr>
<tr>
<td>TOTAL</td>
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</table>
### ANNEX 3 B

**Cumulative Disbursement Schedule**

Project No:
Project Title: Support to the development of energy audit practices

<table>
<thead>
<tr>
<th>Date</th>
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<th>2008</th>
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<tr>
<td>TA Contract</td>
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<td>79 200</td>
<td>184 000</td>
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<tr>
<td>TOTAL</td>
<td>79 200</td>
<td>79 200</td>
<td>184 000</td>
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</table>
ANNEX 4: List of relevant Laws and Regulations
