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OF INTELLIGENT ENERGY EFFICIENCY SERVICES

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EFIEES contribution – Public Consultation – Financial support for energy efficiency in buildings

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EFIEES

Rue Philippe le Bon 15

B-1000 Bruxelles

*EFIEES represents private companies (**Energy Efficiency Services Companies, EESCs/ESCOs**) providing an overall energy management service to end-users. These companies provide services operating, maintaining and managing plant and equipment on end-users' sites, including industry, commercial offices, collective residential buildings, public premises (leisure facilities, healthcare, hospitals, etc.). They commit, by long-term contract, to a set of technical, economic and environmental performance standards. EFIEES members are also **operators of district heating networks and cogeneration installations.***

(1) Addressing market failures

(a) Are the barriers identified in this document the most important ones? If not, which barriers are missing and why are they important?

- Please find our comments on barriers to Energy Performance Contracting below. All the barriers already mentioned in the paper are important and priorities to remove these barriers depend on the specific situation in different Member States.
- Special attention should be paid to measures removing barriers related to public procurement as well as budgeting and accounting rules as the public sector should be able to lead by example on Energy Performance Contracting. Successful projects for public buildings can also serve as an example for financial institutions which are still reluctant to invest in energy efficiency projects as they consider those projects too risky.

Low awareness of and lack of information about the ESCO concept: very important issue, but mainly an obstacle to energy efficiency actions, not particularly an obstacle to energy efficiency financing. This remark can be made for most “barriers” listed here.

Real and perceived high business and technical risk related to:

- *The perceived risk that the energy efficiency interventions might compromise the production or operation processes related to the core business*
- *Aversion to outsource energy management*
- *The long commitment required with ESCO contracts – especially in public procurement, election-cycles may hinder long-term visions*
- *Small size of projects*

High level of mistrust in the ESCO model (customers and financing institutions) due to:

- *Lack of standardisation of contracts*

Several Member States have already developed model contracts or guidelines (e.g. Spain, Germany, Austria, and France). In Germany for example the label ‘Blauer Engel’ is now available for energy performance contracts. Even though these model contracts always need to be adapted to the specific project context, they can be an important tool for orientation and guidance and thereby facilitate the project implementation and reduce transaction costs. They can also be an assurance for potential clients or investors which have little experience with these contract types. However, prescribing too detailed contract types or standards should be avoided as flexibility is needed to adapt to the specific context of a project.

- *Lack of competition in some market segments*

This is the case in markets where only few ESCOs are active. It is also important to avoid distortions of competition between service providers, small ESCOs and big ESCOs and secure equal access to the market for all actors.

Lack of experience of clients, ESCOs and financial institutions

Potential clients (households, SMEs, some public administrations) lack experience with energy efficiency services and are reluctant to outsource energy management to an external service provider. Further, internal management and decision procedures are often very onerous which complicates the implementation of innovative instruments.

Financial institutions have very limited experience with EPC projects and often consider those projects too risky.

Ambiguities in the legislative framework, including the public procurement rules:

- *Complex and time consuming public procurement rules increase the transaction costs of projects*
- Public budgeting and accounting rules:
 - o In some Member States there is a strict division between **capital expenditures and operational expenditures** of public bodies. However, in the energy performance contracting model the guaranteed energy savings which reduce the operational expenditures (energy costs) are used to pay for the investment (part of the capital expenditures).
 - o In several Member States there is a **perverse incentive** to spend the full allocated budgets each year to help ensure that the subsequent annual budgets are not reduced. There is generally no incentive to invest funds in one fiscal year to save money in future ones, despite the benefit to the government as a whole. Because many ESPCs are based on paying the energy service provider from the energy savings, public agencies must be able to retain their energy savings in the current and future years in order to be able to make those payments.¹
- **Split tenders** (see below).

Lifecycle costs are often not used in public procurement

- Adverse effects:
 - o **Discrimination through VAT-rules** which disadvantage the procurement of energy efficient equipment in the framework of service contracts with external service providers
 - o **Targeted subventions** e.g. for heat pumps which arise from the logic of calculating final energy consumption, but result in an increase in primary energy consumption.

¹ World Bank (2010): Public Procurement of Energy Efficiency Services

Lack of experience to develop adequate tender documents and specifications:

- *Poor tenders which are not interesting for ESCOs*

Requirement to **split tenders** can be detrimental to overall energy performance contracts. In some Member States, public procurement legislation recommends or requires splitting tenders in order to enable SMEs to participate in the call for tender. This is however detrimental to the conclusion of overall service contracts such as energy performance contracts. According to the new Commission proposal for European public procurement legislation above a certain threshold public bodies have to justify why they do not split tenders into lots. Split tenders may also cause lock in effects, which is a direct financial obstacle to further energy efficiency action by monopolising all the financial resource and leverage effect on 1 project/loan.

- *Socio-economic situation in Member States with less financial resource*

In some Member States (mostly countries that joined the EU after 2004), the GDP per capita is substantially lower than in Western European countries. When designing policy measures, the European Commission should address the needs of different Member States according to their levels of wealth. In some Member States heat represents an important share of household expenses. For example, in Slovakia the average household expenses for heat account for around 800 Euro per year (including VAT) which represents an average monthly salary. If we take into account that 60% of the working population in Slovakia earns less than 450-500 Euro per month and that an average pension accounts for 300-350 Euro, then it shows that there is a lack of private financing capacity that should be taken into account with a subsequent subsidising policy from the Cohesion Fund.

(b) Which market failures would be most urgent to address? At what level would these failures be best addressed?

The **split incentive** problem (the landlord pays, the tenant has the benefits) is an important barrier, with a direct consequence on financing, in all Member States but in particular in those countries with important rental markets. This is an issue which has to be addressed in national legislation and the Commission proposal for an Energy Efficiency Directive rightly requires Member States to tackle this problem.

Low energy prices which do not reflect environmental and social costs can be an important barrier to energy efficiency especially for big consumers. The new Commission proposal for an Energy Taxation Directive goes in the right direction.

Regulated heat prices in some Member States (e.g. Slovakia, Poland, Lithuania, Bulgaria, and Romania) impede the development of energy efficiency services. When heat tariffs are regulated, the ESCOs and the customers do not have the right instrument that enables to invest in energy efficiency (with lower tariffs + lower consumption that allow to finance the amortisation of the investment, then the tariffs go back to their former level again and the client keeps all the benefit of the energy savings). Therefore, EPC contracts at least should be exempted from regulated tariffs, or even other energy saving contracts

combined with investments. By the same token, the prices of fossil fuels should be left to the market, with exceptions/help if needed for certain social groups, as their increase would give a strong incentive for energy efficiency.

Information failures are difficult to address as the market is complex and a wide range of actors are involved. A single national or regional contact point for consumers which provides information on financing possibilities and possibilities for action has proven to be a good instrument.

Market for energy efficiency services in individual households, or collective households at a lesser extent, does not exist (see below).

<i>(c) How could these failures be best addressed?</i>
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- *How could the development of an energy services market for households be further stimulated?*

Energy efficiency projects for **households** tend to be smaller than projects in the public, commercial or industrial sectors as the ownership is highly fragmented and might change more often than in other sectors. However, due to high **transaction costs** a minimum project size is needed for an EPC project. **Project bundling** can be a solution. One example for project bundling is the 'Energy Saving Partnership' by the Berlin Energy Agency. The Energy Agency together with the City of Berlin identifies pools of public buildings which are suitable for energy performance contracting and conducts pooled procurements for ESCOs. On average 20 buildings are pooled together for each procurement procedure. For public and social housing as well as real estate companies project bundling is also an option. In countries where apartments in big apartment buildings are owned by several owners, associations of apartment owners which jointly organise a renovation project are an innovative solution. The Estonian Kredex fund for example also gives loans to associations of apartment owners.² Generally speaking, decision-making process in condominiums (rules of qualified majority or unanimity) are an obstacle to energy efficiency actions in multi-apartment buildings.

Access to funding is often difficult for households, which hampers deep renovation projects. Further, households are often not aware of the financial benefits which might result from refurbishment and other energy efficiency measures as they do not always act economically rationally and take into account other factors such as convenience during the renovation process. Or, on the contrary, households set too high expectations on energy efficiency actions (some expect *all* expenses to be refunded by savings on energy bill). Adequate **long-term loans** should be developed by the banks.

Information campaigns and audits for households can raise awareness among residential building owners. An important instrument to fight imperfect information is also the energy performance certificate as required in the EPBD, if correctly implemented.

One solution to overcome the financial barriers in the residential sector would be the combination of the ESCO guarantee for energy savings with a national financial support programme for building renovation.

²<http://www.kredex.ee/>

Further, **guarantee systems** to facilitate access to private financing, and to secure the risks taken by the banks (cf. 2(c)) are one of the key missing instruments.³

Fiscal incentives are also an additional tool to incentivise private households to take energy efficiency measures.

The **FRESH project**, which is funded under the Intelligent Energy Europe Programme looks into possibilities for energy performance contracting in the social housing sector. The social housing sector is in so far specific as due to ownership structures a single project can more easily comprise several buildings. However, in social housing there is less flexibility for rent increases following refurbishment measures. The project identifies possible solutions to tackle the split incentives problem such as mechanisms where financial savings are divided between the owner and the tenant and also analyses possible financing tools and additional incentives such as tax abatements.⁴

- *How could the business community be better supported in delivering energy efficiency in buildings?*

One important barrier to energy efficiency and refurbishment of buildings is a lack of qualified workforce which can advise clients on energy efficiency measures and has the technical know-how. Advanced training and education projects such as supported by the European Build up Skills Initiative are definitely a good approach.

Further, there is a need for **guarantee systems**, again, which facilitate access to funding for ESCOs and other companies in the energy efficiency sector and an ambitious and stable regulatory framework for energy efficiency and renewables (cf. question 2(c)) Apart from guarantees, publicly backed soft loans with low interest rates and **extended payback periods** can help until an ESCO or project initiator gets revenues from the energy savings and can make payments. Other instruments are **revolving funds** which offer loans that can be repaid with the extra cash available due to energy savings or tax incentives. Which tools are the most appropriate depends on the risk involved in the projects and the maturity of the market.

Off-balance sheet financing could also be an option. One possibility would be based on using a project financing system with third party financing (normally banks specializing in taking over debts). This solution would require transparency rules built in the system in order to make it safe. Another option would be to focus on concessions (e. g. for District Heating networks), with a property transfer to the concessionaire until the term of the contract, the debt being also carried by the concessionaire. But such systems require long term contracts covering extended periods, and are valid for big size projects. A last possible and innovative approach would be based on cooperation with a special agency owning property assets that could be used to secure EPC financing.

³ Such as the “loan loss reserve fund” for single-family residential energy efficiency and renewable energy lending in the US:

http://www4.eere.energy.gov/wip/solutioncenter/finance_guide/content/basic_concepts_clean_energy_unsecured_lending_and_loan_loss_reserve_funds

⁴<http://www.fresh-project.eu>

Another opportunity for the development of ESCO services in the public sector should be the development of **public-private partnerships (PPPs)** on a larger scale. According to the European Investment Bank, PPPs are characterised by professional project management and implementation, project delivery on time and on budget, service quality as well as a life-cycle approach.⁵ In case of energy efficiency projects, ESCOs guarantee the quality of services including providing reliable energy audits. Unfortunately, the use of PPPs is limited due to the lack of experience of public bodies and even their aversion towards PPPs in some Member States.

Using and integrating EPC, PPPs and EU funding (cf. question 2(a)) may add a lot of certainty to the ESCO market. However these measures could only be supportive – they will not substitute a long-term financing that should be provided by third parties (banks).

How could the split incentive problem be best tackled?

The **split incentive** problem occurs because the landlord does not benefit from the energy savings and therefore has a limited incentive to improve the energy performance of the building. The split incentives problem is in particular important for multi-apartment buildings and social housing and also represents a barrier to energy performance contracting. The major problem housing operators are facing in energy retrofitting is that they are normally not allowed to recoup energy savings from tenants. Split incentives can also exist between different departments of public administration or companies.

- In the framework of the FRESH projects the following suggestions are made amongst others to tackle the split incentive problem: **“Warm rents”**, a system under which tenants pay a total fee for their rent and energy charges, thus enabling the housing operator to transfer energy costs to rents after an energy retrofitting, the possibility for housing operators to recoup up to 100% of energy savings from tenants, based on a performance guarantee, the possibility to recoup energy savings during the whole payback period of the investment.⁶

(2) Improving access to financing

<i>(a) Are the current EU-level financial tools for energy efficiency in buildings effective?</i>

Cohesion policy: The thematic concentration, i.e. the ear-marking for energy efficiency and renewables in the Commission proposal for a new ERDF regulation must be kept to ensure that Member States make use of the funds for these purposes. Several Member States are opposed to this principle as they fear significant reductions in other areas related to local development. However, investments in energy efficiency and renewables have a proven effect on job creation and therefore contribute to local development. **Cohesion Policy funds should be possibly combined with other instruments, such as ETS** (in order to help full renovation of buildings heated by district heating networks).

⁵ <http://www.eib.org/epec/resources/epec-using-EU-funds-in-ppps-public.pdf>

⁶ Adrien BULLIER, Christelle LEFEVRE (2011): Propositions pour le développement des contrats de performance énergétique en logement social.

At the same time, national rules on financing the projects through EU funds influence the development of EPC. It is important for **national legislation to ensure that EU Structural Fund can provide financing of ESCO contracts for municipalities**. Unfortunately, it is not the case for example in Poland, where ESCOs are not mentioned e.g. by the Ministry of Regional Development in the manual for municipalities on the rules of using EU Structural Funds under the *Operational Programme Infrastructure and Environment* for the period 2007-2013.⁷ Moreover, it is important to mention that aligning national rules on EU Structural Funds with ESCOs could serve as a remedy against market distortions arising from overfunding by public entities which display a preference for using EU funding over investing in EPC.

(b) how could more private financing be mobilised?

Through **innovative financial instruments** such as **guarantee systems** (in some MS some examples of local public companies aimed at guaranteeing energy efficiency projects in the public sector, do already exist), **long-term loans** which are backed by public funds more private financing can be mobilised. Further, awareness-raising efforts combined with training activities for financial institutions should be one of the main focal areas to mobilise private financing. **Direct financial support for energy audits for private households and SMEs** - under conditions of execution of energy savings projects - can pave the way for new projects.

(c) is there a need for guarantee systems related to building efficiency investments?

In an Energy Performance Contract, investments can be financed either by the building owner, by an Energy Service Company or by a financial institution. The ESCO normally assumes the performance risk but not always the credit risk. In any case, specific financial tools are needed as EPC require long term loans or guarantees. ESCOs are not always the best source of financing themselves but can be instrumental in arranging the funding and provide the confidence for the envisaged energy or cost savings. Even though energy efficiency measures guarantee future cash flows from energy cost-savings which can be used to partly refinance the investment, (pre-) financing is still a huge challenge. Lending is mostly asset-based, and not cash-flow based and the financial institution requires an (asset) guarantee which the client or the ESCO is not always in a position to provide. This situation is very well summed-up in a publication by UNEP (2010):

“In some rare cases the ESCO as a company has a sufficiently strong balance sheet (supported by equity), and strong income statements from other business activities that can be used against the loan. But this is the exception, not the rule. Debt financing for energy efficiency will almost always require guarantee mechanisms.”⁸

Accordingly, publicly backed guarantees which are tools to ensure that end-users and ESCOs are able to access affordable debt financing (loan guarantees to get better interest rates) are important to leverage commercial finance. Through successful loan repayment supported by public sector-backed guarantees,

⁷http://www.pois.gov.pl/Dokumenty/wso/Documents/20110621_Wytyczne_kwalif_POIS_po_akceptacji.pdf, p.93 (document in Polish)

⁸UNEP (2010) : Publicly backed guarantees as policy instruments to promote clean energy, 68

banks will see that energy efficiency projects can be a competitive and profitable lending product line.⁹ Guarantee systems for small ESCOs and special funds such as the Bulgarian Energy Efficiency Fund¹⁰ can help ESCOs and clients to get third party financing from financial institutions or other bodies. The Bulgarian Energy Efficiency Fund offers a special portfolio guarantee which provides the ESCO with a guarantee against delayed payments from clients or defaulting clients. The fund guarantees up to 5% of defaults and delayed payments under the portfolio and with this guarantee the ESCO gets better interest rates on its debt with commercial banks.¹¹

So called **loan loss reserve funds may be another interesting option**. Those public funds provide risk coverage for losses incurred by a financial institution on a portfolio of loans (guarantee for loans by a lender to a class of borrowers) and the size of the loss reserve is determined with reference to the estimated default risk.¹²

So called **“energy savings insurances”** are to be distinguished from credit guarantees or guarantee funds. An insurance contract is concluded between an insurer and either the building owner or a third-party provider of energy services: in exchange for a premium, the insurer agrees to pay **any shortfall in energy savings** below a pre-agreed baseline, less a deductible. Unlike guarantee – which is a three-party contract – an insurance is a two-party contract between the insurer and the insured.¹³ Insurance systems can also serve as an instrument to reduce the risk for possible lenders. But we do not see the insurance issue as a major one, whereas the issue of guarantee is crucial.

(d) How could the capacity, knowledge and risk perception regarding energy efficiency investments be improved, both a financial institutions as well as with private investors and administrators at all levels?

By developing EPC, which guarantee a level of energy savings and consequent pay-back.

(3) Strengthening the regulatory framework

(a) Is there any need for further EU-level regulation to stimulate energy efficiency investments in buildings beyond the Commission proposal for a new Energy Efficiency Directive? If so, what should these measures entail?

The new Commission proposal for the Public Procurement Directives and for a Directive on Concessions should take into account that split tendering can be detrimental to overall energy performance contracts.

⁹ BASE/UNEP (2006): Public Finance Mechanisms to Increase Investment in Energy Efficiency

¹⁰ <http://www.ebrd.com/pages/project/psd/2007/38100.shtml>

¹¹ UNEP (2010) : Publicly backed guarantees as policy instruments to promote clean energy, 69

¹² UNEP (2010) : Publicly backed guarantees as policy instruments to promote clean energy, 47

¹³ Rezessy/Bertoldi (2010) : Financing energy efficiency: forging the link between financing and project implementation

(b) What could be specific measures to be taken at national level to implement and complement most effectively the EU-level regulatory framework for energy efficiency?

- Effective implementation of European regulation is the key condition for success, especially implementation of the requirements for energy performance certificates for buildings, where several Member States are still lagging behind. Obligations and incentives for the renovation and maintenance of buildings - public or private. Encouragement to EPC.
- Ambitious building codes and local projects which go beyond the requirements of EU Directives.
- Certification and qualification schemes which are adapted to the national context. Quality assurance and standards can reduce the risk of the investment.
- When financing is required for larger projects which concern not only single buildings but whole districts, a holistic approach should be taken to ensure that the efficiency of the whole system (including district heating networks) is improved.