Efficient Implementation of Energy Services in SME

MAKING ENERGY SERVICES SME ATTRACTIVE

Efficient Implementation of Energy Services in Small and Medium Sized Enterprises - EFFI

Publishable report

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Introduction

Despite substantial energy saving potentials, energy efficiency in small and medium sized enterprises (SME) does not see large-scale implementation, neither through the enterprises themselves, nor via external providers of (external) energy services.

For energy service providers, SME are currently not interesting mainly because transaction costs, efforts to secure projects, are too high in relation to the income that can be generated. On the side of the SME themselves, many of them lack dedicated energy staff.

Several actions – national and on EU level - have been implemented to improve energy efficiency in SME, but the needed breakthrough has not been made yet. Key problem is to address and motivate SME for long term action, motivation which takes into account their limitations in terms of staff capacity, priority level, and financial resources.

So what the project EFFI (Efficient Implementation of Energy Services in SME), co-funded under the European Commission’s Intelligent Energy Europe programme between 9/2006 and 2/2009 set out to do, is to focus on moving towards communicational approach and re-organisation of the market in a manner to make energy services SME attractive.

In short: The main objective of the action is the introduction of energy services in SME.

The action aimed at clever use of energy to SME through appropriate and cost efficient energy services. Intelligent energy services should be technically appropriate, but need to consider real (in)capabilities of SMEs. In addition, competition between energy service providers was targeted for it is needed as well as adequate scale of economies to make projects in SMEs cost-effective. These were the assumptions upon which the project introduced a function of an energy service market operator (ESMO) as independent organisation, as a media to representing the weaker partners, the SMEs.

Project partners have looked at the needs of their target group, established a communication basis with all the relevant market actors, looked at existing services in the market and their applicability for SME, benefits and how to present them to SME, discussed and reviewed guarantee elements, ready to be used in combination with energy service products for SMEs. The general EFFI model and country specific implementation strategies according to different levels and needs in the respective markets.
was - including local market actors - deployed and tested, the present report allows insights into the project: from the idea, the general approach, its elements and implementation to the key results and outlook on next steps.

We hope the reader finds our report an interesting document. In case of comments and feedback which is highly welcomed, please get in touch.

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The EFFI Team
The EFFI approach / General EFFI model

Energy is wasted every day. Sometimes we can see it. Mostly it is visible only when it is too late: once the bill arrives.

With constant information on how and where energy is used, where it is wasted, and what can be done to avoid this, a lot of money could be saved. But which data is important, what can be measured? Which technical solutions are appropriate and cost-effective? How to tell an investor or lender that savings mean increased cash-flow? What is the cheapest way to finance the chosen measures? The answers require knowledge and time. Big companies can do it by themselves. Small and medium-sized enterprises need support. This is what EFFI provides.

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*Table 1. Overview on barriers and goals on energy services for SME [Carbon Trust, adapted]*

During the project duration those issues were reconfirmed as key barriers. They were confirmed also by others, e.g. Carbon Trust, who classifies barriers identified into those of

- Lack of time/low priority — the energy services couldn’t be implemented, generally due to other business activities taking priority.

- Lack of resource — the recommendation was accepted as worth doing, but there are insufficient personnel or funding at the site.

- Unconvincing case — the site owner / managers do not believe to the feasibility or potential benefits of the recommended measures.
The main problem is not performing the energy services itself or even the energy management structures in SMEs. Main problem is that around 70% of SME covered by the study of Carbon Trust (and others) suffers lack of financial and human resources - resulting in a lack of attention to the issues.

Slightly simplified to two ends of the story, there are two methods in order to overcome that barrier:

· Implementation of low-level energy efficiency measures with short payback time
· Outsourcing human and financial resources to implement medium and high demanding energy efficiency measures from the SME

**Picture 1** Rough division of measures intensity for energy efficiency (source: own)

A current standard approach is mostly somewhere between those two key alternate options as is illustrated above, and very much focussed on a one-by-one approach to the companies. On the other hand – SME is a mass market. 99% of companies in the European Union are SMEs. Industry is overall responsible for roughly 28% of final energy consumption and 300 million tons of CO₂ emissions annually from industrial processes alone, a large potential for the energy savings and those service providers to leverage the savings.

Based on the findings above, EFFI concluded that we need, in the case of SME, to target

**People, not technologies,**

· Right information to right people
· The right information at the right time
· Information given proactively
Services, but more than just kilowatt hours

- Data, transformed to information and pushed to customer
- Information, transformed into market demand
- Activate service response (incl. Financial Institutions)
ESMO - the trustworthy mediator

In the long run information about energy consumption should become a basic ingredient in company decision making processes, and hence part of the company culture. Intelligent energy services should be technically appropriate, but need to consider real (in)capabilities of SMEs. To do this, we felt the need for a neutral trustworthy body, organising and initialising energy services for SME. Here the parallel and experiences in the field of Energy Performance Contracting are a relevant inspiration. EPC works best in places where a third party has taken up the role of a mediator. It has been seen in the public sector that such a function can stimulate market development and real implementation of energy efficiency measures.

This function within the frame of EFFI is called Energy Service Market Operator or ESMO and its role follows the principles as laid out above. It is designed it as a growing hub for support, implemented in its visible and accessible part as a web portal; leading to an expandable and growing network of supporting partners – the service providers (ESCOs in the widest sense of this word). The hub is a combination, consisting of basic services, additional information to read up (default options for getting started) and access to implementation partners as a link to the standard approach of implementing energy efficiency measures (consultants, equipment retailers) however expanding it by also integrating financial institutions.

Information

Further key ingredient is the right amount and time of information, to the right people. And – since we are targeting a huge market – information has to be pragmatic in the way that it will reach as many entities of the target group as possible, preparing ground for further action. This means that a user-oriented approach is needed, and this also means that it has to build upon the current market situation with its actors and number of ways to eventually reach a point where energy services and energy efficiency measures will be implemented.

All relevant actors, from service providers, financial institutions, and associations need to be involved as further communication channels for motivational work, and for support in case of bigger energy efficiency measures. Another important part is the media presence and visibility support.
EFFI is set up to organise the market in a manner making it easier to act upon energy efficiency both for SME and their service providers; provide simple but effective triggers to act on energy efficiency. Technology is available. You know which one is right for you based on your specific situation? But do you have the time to implement it? And the necessary resources? Is it always technology that has to be changed? Not necessarily.

We based the EFFI model on energy and other data, on their automatic collection, analysing and distribution back to the SME, ESCOs and other interested parties in a useful format. The EFFI model does not look for best available technology, very efficient and more than moderately complicated energy services. It searches for very simple services with view to organizational and financial demands, unless more complicated and demanding services could bring outstanding results.

Three main phases and one resulting (market response) are part of the EFFI model: SMEs motivation (Demand creation phase I), Stakeholders motivation (Support creation), and ESCO motivation (Supply creation).
The following figure gives a general visual impression of the function and functionalities of ESMO in action.

- **SME Motivation**
  - Triggering awareness, Pushing relevant information in the right format, continuously

- **ESMO**

- **Stakeholders motivation**
  - B2B communication, Publicity, cooperation

- **SME motivation II..**
  - transformed to demand

- **Service response / ESCO motivation**
  - Service packages and guarantee models for SME
Building ESMO

As we were going through the project phases, three main issues were looked at that provide important know-how and a basis for ESMO to act. Topics under review were

Energy Services on the market and their applicability to SMEs (WP3), Guarantee Models (WP4) and their adaptation to be useful for SMEs, as well as benefits of energy efficiency for SME as key input for the communication towards SME (WP5).

Another part of building a function of ESMO rested in motivating relevant stakeholders in each of the markets.

Energy Services

Energy services can be anything ranging from providing energy to providing energy savings. And the array of options is quite wide between those two ends of the story. Why are they relevant for SME? Energy services in their increasing level of complexity include

a) Client consulting, walk through audit
b) Energy audit and feasibility studies
c) Equipment (e.g. HVAC) technical design and refurbishment planning
d) Project management
e) Energy monitoring
f) Energy Performance Contracting

Each of the services has a value and application also in SME. However – the conclusion from EFFI is that triggers to get into these services need to start before – with simpler steps, with informational services. None the less, EFFI has also picked up these “classical” energy services for improved energy efficiency, and worked with market actors and financial institutions to offer good financing options for their implementation, and with national subsidies to offer the first as a free service. Further – since financial issues are also preventing SME from acting upon their energy efficiency potentials, EFFI looked more closely at guarantee models and third party financing.
Guaranteed energy performance - yes, but ... for SME?

Investments to improve the uptake of energy efficiency are in many cases cost effective. The EU Directive on energy end-use efficiency and energy services (2006/32/EC) provides a recent framework and aims to stimulate the final energy efficiency, the programmes and measures of energy efficiency.

Third Party Financing (TPF) as a kind of Public Private Partnership is a well introduced tool to finance energy efficiency measures in buildings and other facilities. Especially Performance Contracting has become an instrument to realise relevant CO₂ emission reductions. Considering the specific limits, the different Third Party Financing concepts from Operation Contracting and Performance Contracting offer relevant advantages for an efficient management and refurbishment of buildings, technology and processes. Key element of contracting projects is the guarantee given by the third party on the results achieved.

Guarantees are essentially quality securing instruments. A guarantee involves the promise of delivery regarding expected result of a service. For energy efficiency and related services this means that for example the implementation of measures will result in e.g. 15% reduction in energy consumption or that a maximum of energy consumption is guaranteed. One could also say that guarantees are an evolutionary step for increased security. Security means that guarantee settles (and communicates) the distribution of risks between the service provider and the client. Other quality securing instruments used include benchmarking, certification and labels, sometimes in combination with a standardised project development.

Energy services involving a guarantee of performance to SME are attractive. With guarantees, the service provider can offer a package of services to SME that define the success of a project (planning, implementation, operation and maintenance). The guarantee is usually contracted over a period of years; therefore the service provider has a clear incentive to optimize his approach. The service provider thus can influence and optimize the cost-benefit of the measures. The incentive for the service provider to comply with the guarantees is given through the performance based payment (or fine) system. The contract duration of a few years helps to ensure sustainable and effective measures. Key elements of a guarantee model are:

- The service provider disposes over specific expertise on energy efficiency.
• The service provider offers a performance guarantee on results.

• In case of non-performance, a fine is to be paid by the service provider.

Generally speaking, guarantees can be given on three principal levels that differ in their complexity as regards project development, as well as implementation and verification.

• Systemic, e.g. a guarantee of energy savings given for a building or a group of buildings which essentially is an average

• Technology related, i.e. only one technology is concerned, e.g. lighting

• Process oriented, i.e. all technology belonging to the process, e.g. compressed air

Guarantees can also be characterized along their different contents of performance, which can be contracted along the project cycle of an energy efficiency project.

• Supply Guarantee

• Saving Guarantee

• Function, Operation and Maintenance Guarantee

• Guarantees for Quality and Comfort

Guarantee elements that can for example be contracted between a contractor and SME are saving guarantees. The content of saving can be related to mainly two issues:

• Saving of consumption of different commodities (heating, gas, electricity, water, etc.)

• Saving of energy costs
Case Example: Guarantee models applied to SME

The case example describes an EPC project for lighting, which was initiated in early 2008 for a basement garage of a shopping and service centre in Berlin-Weißensee. The main element of this contracting project is the guarantee to save electricity and related costs over a contract term of five years (2008-2012). This is to be achieved by the substitution of 765 fluorescent lamps, which until late 2007 were operated with conventional ballast. On the basis of exact consumption data and service life of the fluorescent lamps in different parts of the garage, an energy saving and energy cost saving guarantee were formed.

Next to the cost savings being achieved by the savings of energy, the integration of reduced maintenance costs is decisive for the success of lighting contracting projects. As one important element, the calculation of the baseline should contain the costs of maintenance of lighting, i.e. the substitution of defect lamps, calculation of work force, etc. Due to the fact that high efficiency lamps are characterised by an expanded life time, the costs for maintenance can be reduced significantly. In the garage project, the life time of modern T 5 fluorescent bulbs is nearly twice as long as with old-fashioned T-8 lamps. With the given life service (4,200 - 5,200 h/a), life time was doubled from two years with old T-5 lamps to four years with modern T-5 lamps.

As part of the operation and maintenance guarantee, the installation of respective lamps was contracted. The installation was taken over by the concrete producer of the T 5-lamps. Further guarantee elements were defined with the obligation for the facility manager to visually inspect the garage each week to identify existing demands of repair. Maintenance obligations are the substitution of damaged lamps, ballast units, adapters, etc.

Finally, an important task in this lighting contracting project was the definition of specific quality standards. One problem was the fact that one part of the garage was characterised by a better luminance (due to being operated by a specific trade chain). Accordingly, the ESCO in charge committed itself to adapt luminance (measured in lux) to an adequate standard.
The Benefits of energy efficiency in and for SME

The analysis provided in three deliverable documents has shown that SMEs and other market organizations (ESCOs, financial institutions) and the environment can face various benefits if implementing some sort of energy efficiency measures. The analysis was focused on:

- enabling SMEs to improve capacity to fulfil environmental demands and be compliant with them,
- identifying direct and indirect benefits for the SMEs by implementing energy efficiency measures, and
- identifying ways and methods to use energy efficiency as a cause to improve the image of SMEs.

Reasons for the research were identified in the fact that many energy efficiency initiatives, projects, initiatives, voluntary agreements don’t reach them due to time, money, skills and expertise barriers. The main reasons are evidently not of technical nature but originate from nature of SMEs themselves, their organization, their capabilities and position on the market.

It is a known fact that due to the evolution of energy intensity in Europe there is a lot of energy-saving potential in end-use sectors, such as households commercial, transport and manufacturing industry in Europe.

The question, of course, is why SMEs are (usually) not so much interested in investing (their time or money) into energy efficiency measures. Reasons behind this specific behavioral pattern were identified by numerous studies. Before proceeding with the description of benefits, some of them shall be pointed out.

As outlined above, data is showing that barriers to efficient compliance with (not only) environmental demands are very differentiated in SMEs. Lack of knowledge, time and other resources is indicating that they are focused basically on improvements in their process.

One of the earlier studies on barriers and energy efficiency measures\(^3\) identified four generic groups of mechanisms stimulating SMEs to invest in energy efficiency measures:

- Financial mechanisms – which use financial incentives or penalties to drive change;

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3 SPRU, Reducing Barriers to Energy Efficiency in Public and Private Organisations, Final Report, June 2000, funded by European Commission, Joule III.
• Trading mechanisms – which adopt market principles to stimulate investment in energy efficiency and include tradable permits or other trading schemes;

• “Soft” measures – which encourage knowledge acquisition and awareness and are often (though not necessarily) voluntary; and

• Direct regulation – which uses legislative processes to impose certain rules or standards.

Studies are showing that SMEs can achieve many different benefits and create new business possibilities and opportunities:

1. Improved capacity for compliance with environmental demands;

2. Better marketing opportunities due to improved energy efficiency;

3. Direct benefits of energy efficiency measures in SMEs are:
   • Reduced operating costs;
   • Increased energy security;
   • Improved reliability of equipment and manufacturing process;
   • Better positioning in production chains.

4. Indirect benefits of energy efficiency measures in SMEs are:
   • Internal effects on the employees and their working environment, such as:
     - Indoor Environment Quality (IEQ) / working conditions;
     - Improved personnel attitudes;
     - Minimized personnel fluctuations.
   • External effects by the improved image of company’s management.

Analysing available data on marketing and environmental activities revealed the picture of enterprises that are mainly:

• Lacking any kind of environmental management system or energy efficiency measures;
• Have no or small marketing budget;

• And the opposite: having EMS or energy efficiency measures in place and having some marketing budget that could be used for image improvement activities.

Many opportunities and possibilities were identified not only to develop ESMO approach to SMEs. In addition, ways how to use improved image of a small or medium-sized enterprise for improving its market position were identified.

ESMO is therefore:

• Developing communication channels with major stakeholders on the national market,

• Providing information about the opportunities and possibilities for the SMEs to use energy efficiency benefits also
  
  - to improve awareness about their accomplishments on their markets, and
  
  - to reach out for additional sources to enable further improvements of their environmental (i.e. energy) performance.

It is of most importance that ESMO is providing cost effective communication and marketing services.

**ESMO Achievements**

**SME Motivation**

Triggering awareness, pushing information:
automated e-mail report engine, desktop application launch, websites

**Stakeholders motivation**

B2B communication, publicity, cooperation
Efficiency roundtable, energy management in practice, efficient with energy, workshops on financing

**Service response / ESCO motivation**

Service package compressed air; guarantee models - performance contracting for SME (e.g. lighting), preferential credits with audit support scheme

**SME Motivation II. transformed to demand**

Project outlines, data analysis service for ESCDs, project follow-up and benchmarking
ESMO in practice

Element 1 - Data, transformed into information...trigger awareness in SME

Small steps to get SMEs trust

From all of the above, the conclusion for our application is that any communication with SME should be nice, easy and should make them very comfortable. Since we are dealing with business data, SME should also never feel threatened in any way. We just try to help him and the start should be very easy, providing just quickly understandable data in a very evident way, easy to use in order to act. Further, is it needed to be

- Using existing infrastructure and communication channels (already existing energy data), avoiding human work effort to provide the service.

In order to reach a breakthrough, we should address many, many SME. Not tens of them, but thousands. It is not possible to address so many SMEs if we have to work with each of them. The approach is to slowly motivate them, addressing thousands of them each month and expecting few percents of response from the each mail upon which to act by providing access to or directly services.

- A pull concept is not adequate. A push should be implemented instead: the world wide web is fine, but it represents pull approach and is not enough; in addition, paper and e-mail communication have to be pushed

Initial mass communication is executed via existing channels, such as paper and electronic mail. In that way no SMEs work will be necessary to get first trigger. Each time when they open a new mail they will receive a custom made product, tailored to their needs, with simple analyses of their company’s development with view to energy consumption, later extended by benchmarking. Some first simple hints to catch the idea on easy first steps are included. The goal of this first stage is that after the few mails the SME manager will pick up a phone or click on the web to get more information or to start an action.

Triggers to catch SMEs

When implementing this approach, we had to consider what kind of information can achieve the intended trigger. It is about what to tell SMEs to get their attention. Since we aim at thousands rather than tens of SME, different triggers will be needed to reach a large
amount of SME. The success of the triggers will be analysed with the response to the phones, clicks on the web application.

Possibilities are:

- How my competition does it (and what is my position right now in comparison)
- Decreasing costs
- What we did this year and why it is better/worse than what we did last year
- Can I do anything to be even better

We believe that only a service, which would provide SMEs with tailored service, without any additional work or costs for SMEs, can be successful. This is even truer in the beginning of the motivating process of SMEs, when they don’t believe in energy efficiency necessity or when energy efficiency is not one of the priorities. The key person of SME is a general manager, who is often also a shareholder. It is very difficult to fulfil those criteria with technical demanding energy services. But we can start with simpler, which demand less work and equipment of ESMO. This is analysing the data, benchmarking and showing the weakest points of the SMEs. And giving first simple options upon which to act they can start saving. We pushed the information to them to minimize their work. Since one of cornerstones is analysing energy data, is of crucial importance to get those data on a very simple way.

Technical review of accessing the data

Electricity metering is generally widely implemented and data, technically speaking, easier available than for example for gas. In best case they are available for all SME with standard 15 minutes resolution; in worst case they are available only as a monthly data. Automatic Gas meter reading is implemented mostly for the biggest SMEs. In that case data are available on daily or one hour interval. Due to more expensive meters, smaller SMEs are not metered in that way and data is available only in the monthly interval.

Legal rights to access and analyse data

Another question is how ESMO can get access to those data from the meter directly or in some databases. There are more ways. Each of them has some advantages and handicaps.
ESMO - SME

Most straightforward way is that ESMO asks the SMEs. SME may demand from the meter reading company that they share data with ESMO. This way demands personal approach, since it is question of trust to allow somebody to deal with energy data, which could be a business secret.

ESMO - Chamber - SME

A different approach used the SME associations such as the Chambers of Commerce or others who offer help to their members through energy consulting. In that way chamber asks members for permission to collect their energy data. This way is not demanding for ESMO, but the success could be lower since it depends heavily on relation chamber – members and demands SMEs action (allowing accessing the data).

ESMO - energy data owner - SME

Another way is that ESMO cooperate with someone who may already provide some kind of services to SMEs and has data. Most usually is this energy supplier, which is basically ESCO (it provides at least one service – energy supply). So the ESMO doesn’t need to care about permissions since energy provider will take care for this. But the problem is that in that position ESMO is not independent anymore and it could be difficult to provide ESCOs independent service to SMEs. It is an energy supplier interest to provide additional services to SMEs. This improves its image and properly managed improve clients loyalty. Furthermore, following the energy service directive\(^4\) they have to provide services which help clients to decrease energy consumption. It is also good to better know the consumers habits, their attitude to energy consumption and in that way provide better and more custom oriented services.
Preparing the response

Element 2 - 3 Stakeholder motivation and communicating with the market & motivating service providers

We believe that a successful approach cannot stop with making acting easy for the SME. On the other side, the suppliers of energy and associated services are the ESCOs, but also financial institutions, Associations of SMEs, and essentially even the media. All of these need to be integrated and become part of the package.

EFFI was able to secure the interest and cooperation of representatives of all market actors, including the largest bank in Slovenia, but also technical service providers got on board. The project aims to establish a market with energy services in SMEs in limited volume, but with all key market players engaged and a high replication potential in other countries, and the basis has been laid.

The next step is to expand the communication /information services which are simple and trigger also non-investive, i.e. behavioural changes to those services or medium to complex offers from external providers – as laid out under “Energy services” and “Guarantee model” chapters previously. It is key to link all elements together. Even when moving into more complex services, they should be packaged simply and easy to apply for SME, for example by focussing on a single problem such as lighting. The information services as provided in the pilot in Slovenia are an important accompanying service by ESMO. Only then we believe a long term benefit can be achieved, and more initiative will be taken. ESMO remains in the centre to organise market players, arrange partnerships, and connect supply and demand side.
Information Asymmetry

A short discussion about availability of energy consumption data

Energy data is the key ingredient in implementing the EFFI approach, and we have sketched out above that the ownership of data is crucial. In Slovenia, energy suppliers charge high monthly fees if customers want to receive, or allow a third party such as the ESMO to use that data.\(^5\) With view to the general benefits that availability of data would have, we can compare the case to earlier successful cases of environmental data.

In the field of environmental protection, nowadays a special agency can be asked for the so called »pollutant release and transfer registers/inventories«. These inventories are databases of individualized emission data per source. They are regularly published and are made public in proactive way, i.e. by use of internet.\(^6\)

Many countries already have extensive systems in place for collecting and registering data on emissions, e.g., through operating (environmental) permits or monitoring systems that are regularly (annually or less frequent). Also through the European Emissions Trading Scheme, large production sites are included, and summary data is in principle available.

Looking at lists containing primary (and regulated) pollutants to air, water, soil, some also on waste transfers and traffic basically no individualized data on energy consumption for SME is publicly available.\(^7\) An analysis might also find that SMEs are basically out of the reporting obligation schemes for pollutants. Further, especially their energy consumption data are not included. In energy field energy consumption data per company are not part of such inventories. On the other hand, basically all countries do have comprehensive energy consumption statistics.

A first conclusion is that individualized data on energy consumption for SMEs is basically in hands of the energy providing companies, thus addressing the issue of their accessibility. This is also begging a set of questions on complex legal issues. Energy consumption data is part of the contractual relationship between energy provider and energy consumer, where electricity price and many other attributes are identified. We can assume that the argument, that revealing or publishing such data might jeopardize energy provider future market capabilities and also its position. However this kind of argument was already meet in the emission debate in the past. General answer or response was that it is of public interest to know...
the local emission sources and their quality, pointing out social, health and environmental costs or benefits.

The liberalisation of the energy market, further development of the energy efficiency legislation and market responds by growing numbers of various energy service providers, are all contributing to further request for quality data as an entrance data for energy efficiency measures. The liberalisation of the market has now also reached the provision of measurement services, which brings new players to the market: the meter operators. These can be the energy suppliers, or third parties.

The contractual nature of the energy consumption is opening another dimension for understanding. A contract is by definition "an agreement that creates and defines obligations among the two or more parties", so the third party (energy service providers) can obtain the data only by agreement of one or both parties. They also agree about the scope of the information exchange or even the process of their revealing. However all parties do not have the same set of information or knowledge about the data, influencing the agents behaviour.

Economic and rational choice theories were developed around this problem. Theory on information asymmetry is claiming that "decisions in transactions where one party has more or better information than the other are creating an imbalance of power. Such transactions might sometimes go awry." This theory, reading it intuitively, is saying that energy providers as only market agent having overview about specific energy consumption of its costumers, are basically monopolists on such information/data.

By analogy, individualized data are not available to nobody other than energy provider itself, and such data to be collected is demanding from the collection agent individual contracting with all consumers. Thus the analogy with successful cases of obligatory publishing of emission data (see above) has been made. Having individualized emission data available per source the information asymmetry is smaller and thus market positions of the agents more fair.

From energy efficiency (or climate change) point of view making individualized energy consumption data, owned by the energy providers publicly accessible would instigate further development of tailor-made energy services.
Conclusions

EFFI has pushed borders in the market. Borders whose flexing has not been tested as such before. Accordingly, the case for action faced some obstacles, part of which were known before since they are the basic assumptions behind the project.

Whereas in the beginning the whole cycle from motivation of the SME to the motivation of the service providers and the implementation was scheduled, the project faced the need to approach the issues in a more focused manner. Result is that the motivation process is well underway, the tools for easy and effective mass communication with SME are available and the service and supporting market players are informed. Whether they are ready to respond yet the future beyond the project duration will show.
Further reading and contacts

Web pages:
effi.energetika.net
www.ucinkovita.eu
www.berliner-e-agentur.de
www.energiesparende-beleuchtung.de
www.energiaudit.ee

Documents
See effi.energetika.net

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Effi as an Idea

Small and medium enterprises are mainly out of the energy service providers’ focus despite substantial energy saving potential. Reasons for that are various, from anticipated high transaction costs and lack of interest, to scarcity of dedicated energy staff. Many actions were implemented to improve energy efficiency in SME’s, without needed breakthrough.

EFFI is assuming that previous projects did not reach significant results on a wider scale due to being too narrowly focused on technological issues. They neglect many other social, organizational, business and individual issues that are typical for SMEs. To achieve more effective energy efficiency projects in this business group, the focus should be moved from technical measures to reorganizing the market.

EFFI is suggesting different approaches to SME in form of a function for a more clever use of energy through appropriate and cost efficient energy services. Intelligent energy services should be technically appropriate, but need to consider real (in)capabilities of SMEs. Thus EFFI tested the introduction of an independent organization - an Energy Service Market Operator, ESMO. Such a function can stimulate market development and real implementation of energy efficiency measures.