EEPP RECOMMENDATION PAPER

Final Version

Abbreviations glossary:

DG – Directorate-General

EE – Energy Efficiency

EEPP – Energy Efficiency Public Procurement

EFFECT – Upgrading of Energy Efficient Public Procurement for a balanced economic growth of SEE area

ESD – Directive on energy end-use efficiency and energy services

EED – Energy Efficiency Directive

EU – European Union

GDP – Gross Domestic Product

GPP – Green Public procurement

HVAC – Heating, Ventilation and Air Conditioning

LCA – Life Cycle Assessment

LCC – Life cycle costing

NAP – National Action Plan

NEEAP – National Energy Efficiency Action Plans

PP – Public procurement

REA – Regional Energy Agency

RDA – Regional Development Agency

RIA – Regional Innovation Agency

SEAP – Sustainable Energy Acton Plan

SEE – South East Europe

SMEs – Small and Medium Enterprises

1. Introduction

1.1. Scope of the document

The EEPP Recommendation paper aims to provide indications for measures to be adopted and implemented by the *Upgrading of Energy Efficient Public Procurement for a balanced economic growth of SEE area – EFFECT* Project Consortium in order to enhance capacity of public authorities (demand side) and private stakeholders (supply side) to implement successfully EEPP procedures.

The document is the result of the extensive analysis conducted within the 3rd Work Package of the EFFECT Project, aimed at reviewing **legislative framework** and assessing experience in implementation of EE adopted measures through public procurements procedures in SEE Member States participating to the project.

The first step was the development of a *Transnational EEPP Procedures Catalogue,* which provided an overview on project partners' SEE countries/territories Energy Efficient Public Procurement procedures in order to find out what is the **level** of energy efficient criteria **integration** for SEE area public procurement procedures. This document also shares examples of **best practices** on EEPP in the SEE area.

The **strengths and opportunities** were pointed out in the second step of the analysis, the SWOT analysis on EEPP criteria implementation on demand side at SEE level, which offered, along with the *Transnational Catalogue,* the image of the strengths and opportunities to be exploited and the threats to be overcome on EEPP criteria (provisions and implementation) on demand side (public authorities).

A detailed analysis on the **barriers and constraints** faced by the supply side (private sector) during the participation to EEPP public tenders was realized through a survey on supply side which led to a final report on barriers/sectors developed at SEE level.

The recommendations expressed by the consortium (collected during the Transnational Workshop organized in October 2012), will contribute to the improvement of current situation of EEPP criteria implementation in terms of successfully EEPP procedures and in terms of increasing the participation of the product suppliers, service providers and/or contractors of energy efficient works in procurement procedures initiated by the contracting authorities.

1.2. Executive summary

The *EEPP Recommendation Paper* supports the action taken by the EFFECT project to establish a common framework to help public authorities in the SEE in their efforts to design and implement energy efficient public procurement (EEPP) and private sector to orient production towards the energy efficient products and services, by removing barriers faced by private sector participation in public procurement (including energy efficiency criteria), thus creating sustainable consumption and production policies, new technologies and new business opportunities .

Increasing energy efficiency is one of the biggest challenges of the 21st century for all governments of SEE area and beyond. Facing this challenge, public authorities have a key role in developing and implementing national energy efficiency policies due to the share of public procurement (approx. 16%) in the European Union's GDP.

After extensive analysis carried on by the EFFECT consortium, the Recommendation Paper summarizes the main findings resulted and provides suggestions for achieving the goals of the following project activities aimed at consolidating the capacities of the demand and supply sides in EEPP.

The recommendations address both sectors traditionally involved in public procurement and try to induce a complementary approach for the following activities.

Supportive actions in EEPP must tackle public sector's (demand side) needs and deficiencies simultaneously with the helping the private sector acting in EE to become a constant business partner of the contracting authorities.

The three pillars for the actions recommended are information, knowledge and experience and are intended to produce improvement on 2 directions: awareness and training.

Awareness-targeting actions are meant to increase knowledge on legislative provisions, financial and technical solutions, existing technologies as well as new developments in EE-related fields.

Training actions should increase the capacity of actors to implement EE solutions and procurement procedures and to encourage and consolidate a EE behaviour.

2. Current Context of the Energy Efficient Public Procurement

2.1. International context

The WTO's Agreement on Government Procurement (1994) (GPA)

The GPA establishes an agreed framework of rights and obligations among its Parties with respect to their national laws, regulations, procedures and practices in the area of government procurement.

Government procurement was originally omitted from the scope of the main multilateral trade rules opening up market access, but, since it is estimated that government procurement typically represents 10-15% of GDP, this represents a considerable gap in the multilateral trading system.

A growing awareness of the trade-restrictive effects of discriminatory procurement policies and of the desirability of filling these gaps in the trading system resulted in a first effort to bring government procurement under internationally agreed trade rules in the Tokyo Round of Trade Negotiations. As a result, the first Agreement on Government Procurement was signed in 1979 and entered into force in 1981. In 1987, it was amended, this amended version entering into force in 1988. In parallel with the Uruguay Round, Parties to the Agreement held negotiations to extend the scope and coverage of the Agreement. The Agreement on Government Procurement that is currently in force was signed in Marrakesh on 15 April 1994 — at the same time as the Agreement Establishing the WTO. The new Agreement entered into force on 1 January 1996. The GPA is one of the "pluri-lateral" Agreements included in Annex 4 to the Marrakesh Agreement Establishing the WTO, signifying that not all WTO Members are bound by it.

An important cornerstone principle is **non-discrimination**. In respect of the procurement covered by the Agreement, Parties to the Agreement are required to accord to the products, services and suppliers of any other Party to the Agreement treatment "no less favourable" than they give to their domestic products, services and suppliers.

In order to ensure that the basic principle of non-discrimination is followed and that access to procurement is available to foreign products, services and suppliers, there is a general requirement to publish laws, regulations, judicial decisions, administrative rulings of general application and any procedures regarding government procurement covered by the Agreement.

The Agreement requires that tender notices state clearly, either in the notice itself or in the publication in which it appears, whether the procurement in question is covered by the Agreement.

The Agreement contains a number of detailed procedural obligations with procuring entities that have to fulfil to ensure the effective application of its basic principles (Articles VII to XVI). In many respects, these provisions codify recognized good practices in the area of government procurement aimed at ensuring efficiency and value for money. In the context of the GPA, they also serve the purpose of guaranteeing that access to covered procurement is open and that an

equal opportunity is given to both domestic as well as foreign supplies and suppliers in competing for government contracts.

The GPA sets out mandatory requirements for the establishment of a domestic bid challenge system, giving suppliers believing that procurement has been handled inconsistently with the requirements of the GPA a right of recourse to an independent domestic tribunal.

2.2. European context

Amongst the first regulations issued by the former European Economic Community on European Commission's as well as on other European institutions' recommendation with the intention of providing a more balanced and better trade of products in the member states through government public procurement were:

- **Regulation (EEC) No 1183/71 of the Council of 3 June 1971**. *This regulation concerned the opening, distribution and administration of Community tariff quotas for lead lumber and refined lead at certain quantities and quality levels.*

- **Decision of the European Court of Justice C-513/99 dated September 17, 2002**. *According to this decision, where public service contracts in the transport sector are to be concluded in respect with Directives 92/50/EEC and 93/38/EEC, the contracting municipalities which organize bus transport services and an economically independent entity which participates in the tender procedure as a tenderer must take into account the criteria relating to the protection of the environment to determine the economically most advantageous tender.*

- **Decision of the European Court of Justice C-488/01 dated December 4, 2003**. *The decision was taken upon Directive 93/36/EEC - Public supply contracts – concerning the concept of the most economically advantageous tender taking into account award criterion giving preference to electricity produced from renewable energy sources.*

- **Directive 2004/17/EC of the European Parliament and of the Council dated March 31st, 2004**. *This directive regulates the coordination of the procurement procedures of entities operating in the Member States in water, energy, transport and postal services sectors by observing award criteria which clarifies the possibilities for the contracting entities to meet the needs of the public concerned including the environmental and/or social area, provided that such criteria are linked to the subject-matter of the contract, do not confer an unrestricted freedom of choice on the contracting entity and are expressly mentioned and comply with the fundamental principles. One major reason for the introduction of rules coordinating procedures for the award of contracts in these sectors was the variety of ways in which national authorities can influence the behaviour of these entities, including participation in their capital and representation in the entities' administrative, managerial or supervisory bodies*.

- **Directive 2004/18/EC of the European Parliament and of the Council dated March 31st 2004.** *This directive regulates the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts.*

- **Communication COM (2008) 400, published on 16 July 2008.** *This Communication provides guidance on how to reduce the environmental impact caused by public sector consumption and how to use GPP to stimulate innovation in environmental technologies, products and services. At EU level the European Commission set an indicative target that, by 2010, 50% of all public tendering procedures should be green, where 'green' means compliant with endorsed common core EU GPP criteria*

- **Regulation (EC) No 106/2008 of the European Parliament and of the Council of 15 January 2008.** *This Regulation provides for a Community energy-efficiency labelling programme for office equipment (Energy Star) and requires EU institutions and central Member State government authorities to use energy efficiency criteria no less demanding than those defined in the ENERGY STAR programme when purchasing office equipment.*

- **Regulation (EC) No 1222/2009 of the European Parliament and of the Council of 25 November 2009.** *This Regulation established a framework for the provision of harmonised information on the labelling of tyres with respect to fuel efficiency and other essential parameters.*

- **ErP Directive 2009/125/EC (Formerly EuP).** *The Directive establishes a framework for the setting of eco-design requirements for energy related products. The new ErP-Directive covers products under the old EuP Directive as well as products that are energy-related and do not directly use energy.*

- **Directive 2010/30/EU of the European Parliament and of the Council of 19 May 2010.** *This Directive regulates the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products*

- **Green Paper on the modernization of EU public procurement policy "Towards a more efficient European Procurement Market" (COM 2011 - 15 final)**. *In this document the European Commission stated that public procurement plays a key role in the Europe 2020 strategy as one of the market-based instruments that should be used to achieve these objectives. More specifically, the Europe 2020 strategy calls on public procurement to improve framework conditions for business to innovate, making full use of demand-side policy, support the shift towards a resource efficient and low-carbon economy by encouraging wider use of green public procurement, and improve the business environment, especially for innovative SMEs.*

The Green Paper was endorsed with small amendments and majority of votes by the Committee of the Regions during its 90th Plenary Session that took place in Brussels on April 12, 2011.

- **The Energy End-use Efficiency and Energy Services Directive (ESD)[1].** *Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EE*

The purpose of this Directive is to encourage energy efficiency through the development of a market for energy services and the delivery of energy efficiency programmes and measures to end users. The Directive covers most forms of energy sold to end users, including transport fuels.

This Directive on energy end-use efficiency and energy services (ESD) is a welcome addition to the family of European Directives dealing with **the use of energy**, and it is often referred to as the Energy Services Directive and sometimes as the Energy Efficiency Directive.

Rather than focusing on specific technologies or measures, the new Directive addresses actors and institutions and the way markets for energy and services function.

It will thus complement and improve the implementation of existing EU energy efficiency legislation, including the Directives on Energy Performance of Buildings, on Combined Heat & Power and on Energy labelling of appliances.

The End-use Efficiency and Energy Services Directive was adopted by the European Council on 14 March and formally entered into force on 17 May 2006. Member States had two years to transpose the Directive into national law.

The Directive defines and sets **savings targets on a national level**, and will require action by each Member State of the European Union.

Member States must achieve a minimum annual energy savings target of 9% by the ninth year in the period from 2008 to 2016. In line with this, each national government must produce energy efficiency action plans (EEAPs) in 2007, 2011 and 2014.

In their first EEAP, each Member State had to report on how they will reach their targets and in the two subsequent plans they will also have to report on what has been achieved.

Although the targets are indicative and thus not mandatory, Member States have a clear legal obligation to adopt and aim to achieve the target, using appropriate cost-effective energy services and other energy efficiency improvement measures.

Besides the energy efficiency targets, the Directive sets the framework for Member State activities and measures in a number of areas, such as financing, metering, billing, promotion of energy services, and obligations for the public sector.

Member States are required to ensure that their public sector organizations play an exemplary role - in which case firm energy efficiency criteria should be part of the product purchasing and investment decisions.

[1] On the 14th of November the Directive 2012/27/EU (Energy Efficiency Directive), abolishing the Directive 2006/32/EC, has been published in the OJ of the EU).

Energy companies represent another important sector. For the first time, Member States are required to place energy efficiency obligations on energy distributors or retailers although there are a number of options which they can utilize, ranging from involving the energy distributors and/or the retail sales companies in energy efficiency activities, through to letting the energy distributors and/or suppliers contribute to funds for energy efficiency.

These obligations, while placed on energy companies, do not necessarily require activities on the part of energy companies, which may be carried out by other market actors. Measurement and verification of energy savings achieved will be vital to the implementation of the Directive.

A committee with Member State government representatives is to be established to assist the Commission in the further development of a harmonized bottom-up/top-down system to measure the achievement of the energy savings targets.

2.3. SEE area context

I. Regulatory Framework

The *Transnational Catalogue* provided an overview of the regulatory framework regarding Energy Efficient Public Procurement procedures in the SEE area countries. It was found that the investigated countries have different levels of development of the regulatory framework on EEPP/GPP.

C1. A major conclusion is that efforts are being made and visible results can be found in all countries analysed. However political mechanisms have to be refined and NEEAPs must demonstrate coherent strategies supported through institutional and financial provisions.

C2. There is also a fine understanding of the incentives' role, which is to reward and encourage and there have been identified national initiatives that provide the implementation of financial benefits schemes to support EE actions.

Performer countries like Austria, Italy, Slovenia and Hungary have a good, precise and clear regulatory framework, almost entirely aligned to the EU provisions, and their implementation is detailed in the national policy and in the medium term strategies. In these countries, the average adoption rate is of about 4 measures included in the legislation.

C3. The concrete supporting instruments (financial, methodological, technical, etc) developed are correlated with performance monitoring indicators. As they already proved their efficiency and effectiveness, the implemented instruments can be used like model within the other SEE area countries.

C4. The policies and strategies for EEPP/GPP are a perfectible area of the national framework that most countries need to tackle. A strategic vision of EEPP/GPP would contribute to a more coherent legislation and clearer mandatory provisions.

C5. Relevant documents on EEPP are present in all the investigated countries but the situation of existing guidelines, handbooks or other useful instructions for EEPP and/or GPP is different from one country to another.

There is a need to define mandatory provisions to remove the legal uncertainties and conservatism. Successful implemented criteria are not complex, easy to use and cost-effective.

II. Demand and supply side analysis

In the SWOT analysis carried out on the demand side, the individual members (proposed by the project partners) were evaluated according to their strengths, weaknesses, opportunities and threats.

This review has shown especially large scarcities in awareness raising as well as in the processing of information. Some countries (districts) have a good level of information. They know about energy efficiency, green/sustainable procurement policy/strategy and national action plans. These regions also work together with local governments or local energy agencies. In a few cases also extern experts were integrated in the process. With the knowledge of these persons the district is able to work more efficiency on sustainable projects.

On the other hand were also evaluated districts with almost no knowledge. The reason therefore in most cases is that these organisations/districts don't have information/knowledge. The specific problem is the transport of the information and the bureaucracy. The relaying of the information is blocked and local organisations don't get information to do project as good as other institutions.

strenghts	weaknesses
• Implementing and conversion is running in every PP country (the intensity of conversion is different) • Key-aspects activities, best practise can be identified in SEE countries • Organization of campaigns, trainings, workshops • Municipalities that participate in the CoM or have adopted an Energy Management System	• Existence of local agencies/persons/ governments that have little knowledge about EEPP • Waek awareness regarding existing laws and orders • Lack of organizational structures to coordinate efficient operational sequences • Lack of expertise by the described topics above • Higher costs of energy efficient products and investments • LCA is known but in most cases it isn't used.

opportunities	threats
• Availability of supportive organizations/experts/agencies in some countries • Availability of websites that spread information on EE products (www.topprodukte.eu,	• Very limited budget during financial crisis • National laws, action plans are either insufficient or not consistently implemented • Local tendering agencies do not have access to full information and are therefore not involved

www.achizitiiverzi.ro) in some countries • Relevant existing laws, regulations and orders • Availability of financial incentives for EEPP • Systematic processes for the EEPP in different sectors already in place • Awareness raising, trainings (tendering agencies + production engineers)	

On the supply side, the aim of the analysis undertaken focused on investigating the **barriers the supply side faces when trying to sell their energy efficient solutions to public authorities**. This approach enabled the inclusion of a broader range of experiences – not only the experiences that were made in energy efficient tenders but also in conventional ones. Furthermore, not only tenders but also direct awards and subcontracts were involved.

The analysis provided the main results on the supply side situation:

– The importance of EE in public purchases is differently perceived within the 8 SEE-countries analysed

– Most of the obstacles identified do not seem to be specific for countries, sectors or company-sizes

– Some obstacles are unrelated with the sale of EE solutions - they are case - specific and related to the public authorities transactions procedures:

- Difficulties to invest the time to fill in the tenders/ bureaucracy of the tendering procedure
- Procurement process lacks flexibility and transparency
- Credibility of the public sector in timely meeting financial obligations

– The lack of use of LCC prevent some companies to sell their EE solutions to public authorities

– Energy efficient solutions seems to be more expensive at least in terms of investment

– Public procurers ask mostly for conventional solutions

To overcome some of the hurdles identified, there was a common understanding of the supporting actions that can foster the adoption of the energy efficient solutions:

- Qualify public procurers (or include external expertise)
- Procurers have to include Energy Efficiency, LCC and quality in their tenders.
- The knowledge of public authorities/public procurers on EE has to be increased. Only informed authorities can make the right choices.
- The procurement process has to be simplified and standardized.
- Public authorities need more financing solutions (such as PPP) to invest in energy efficient solutions.
- The communication between the demand and the supply side has to be increased.
- The process has to become more transparent.

2.4. Best Practice Examples

I. Current context of the implementation

All the states in the SEE area demonstrated their increased interest in integration of the concept of energy efficiency and GPP in different aspects of daily life of the state, public institutions, private organizations and citizens.

PPs proposed a range of best practices examples collected from the public authorities within their territories that revealed the efforts to reach some specific targets on EEPP.

The projects proposed include:

– EE investments (PHV parking in Pesaro, green schools and EE light bulbs in Greece),
– establishing energy agencies (in Slovenia and Romania)
– elaborating strategies, programmes and plans (Italy, Hungary, Greece and Slovenia)
– joining the Covenant of Mayors (Italy and Romania)
– implementing EE and GPP/EEPP-related projects
– promoting the EEPP/GPP approach by creating web-platforms (Italy, Romania) and networks (Italy), elaborating guidelines and toolkits (Romania, Greece), establishing consultation packages (Austria), monitoring the EE investments' performance (Slovenia, Romania) and being an example for the community (Hungary, Austria), application of EMAS and/or ISO14001 in public sector (Greece).

II. Selection criteria and justification

Throughout the SEE area, various EE-related initiatives influence and generate a supporting behaviour when it comes to the public authorities and even the citizens.

Based on criteria referring to the relevance towards EE application in public procurement, best practices promoted stand out through:

- market consultation process (estimation of the value of the contract);
- conditions for qualification/selection of the offers/candidatures (technical, financial managerial capacity, experience, expertise, standards, etc);
- criteria used to select the winner (detailed algorithm used for calculation, methodology for scoring);
- environmental impact assessment techniques for appreciation.

III. Best Practices Promoted

- **Municipality of Chalkideans** / Directory of Technical Services / Department of Public Works implementation apply the national legislation and especially the National Regulation for procurements in the Local Government which concerns the technical specifications fulfilment. The Municipality purchased 5000 energy savings lights and vehicles according to EURO 5 criteria (less pollutant engines, less pollution gasses).The technical specifications included criteria on energy efficiency and also during the offers evaluation, these criteria have been considered.

- **Civil Aviation Service** from Greece applied National Law for Building Energy Efficiency (KENAK). Based on the 2010 KENAK Legislation they have included in the Design

Specifications for new Airport Building Infrastructure, Energy Efficiency Studies, so as to comply with Local Energy Standards.

- **Ministry of Justice and Public Administration** from Slovenia included energy efficiency criteria when purchased vehicles, electricity, papers and IT equipments. The procurement procedures were implemented through AJN – *Agency for Public Procurement* and LCC tool was part of the tender's award criteria. For vehicles was also used the method of calculation of CO2 emissions. The indicated value of the investment in energy efficient products was tens of millions EURO over three years.

3. Trends in Energy Efficient Public Procurement

3.1. Background to create the future of EE

When it comes to influencing the future in EEPP, there are initiatives (strategies, plans, programmes) that are decisive for its evolution. The European Commission is constantly developing such new tools to steer the activities of the stakeholders in the right direction.

The most important elements within the EC's working tools are listed below:

- The 2009/33/EC Directive of the European Parliament and of the Council from 23 April 2009 on the promotion of **clean road transport and energy efficient vehicles**.

The Directive requires public authorities and other operators to take into account the acquisition of transport vehicles from public money, the lifelong impact of their exploitation in terms of energy consumption, CO2 emissions and other pollutants (NOx, NMHC and particulate). To avoid excessive administrative barriers, the Directive states the possibility to exempt small-quantities acquisitions and special duties vehicles.

The contracting authorities may choose to establish technical specifications for energetic and environmental performance which can be included in the documentation regarding the purchase of the vehicle or to include energy and environmental impact of the purchase in the decision.

The Directive provides a calculation method which allows the money assessment of the energy consumption and CO2 emissions and pollutants for the entire life of the vehicle.

The Commission will encourage the knowledge and best practices exchange between the member states in the promoting field of the acquisition of clean and energy efficient road transport vehicles.

- The Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the **energy performance of buildings**

The Directive's objective is that, as of **December 31, 2020**, all the new buildings will be nearly zero energy consuming. New buildings occupied and owned by public authorities must meet the same criteria by December 31, 2018, practically to be energy independent.

To this purpose, the Member States should adopt, at national or regional level, a methodology for calculating the energy performance of buildings, which must take into account:

- the thermal characteristics of the building (heat capacity, insulation etc.).
- the heating system and hot water supply;
- air-conditioning systems;
- integrated lighting installation;
- indoor climatic conditions.

Also, the calculation methodology will take into account the positive influence of other factors, such as the local conditions of exposure to sunlight, natural lighting, and electricity produced by cogeneration and centralized heating and cooling systems or block.

According to the calculation method specified, minimum energy performance requirements shall be applied to achieve optimal levels, in terms of costs. The level of these requirements will be reviewed every five years and will take into account the different types of buildings and the building's age.

Moreover, whenever a building is built or renovated, the directive strongly encourages the introduction of **smart metering systems**.

The member states should establish a system of energy performance certification of buildings applicable to buildings or building units under construction, offered for sale or rent.

The member states must establish a system of regular inspections of the building's heating and air conditioning systems also.

- On 4 October 2012, the Council endorsed the political agreement on the **Energy Efficiency Directive**[2]. The European Parliament voted favourable on 11 September 2012.

The new Directive starts from the existing directives on cogeneration and energy efficiency and brings them together into a comprehensive legislative instrument, addressing the energy efficiency from the energy generation, transmission and distribution; the leading role of the public sector in energy efficiency; buildings and appliances; industry and the need to empower final customers to manage their energy consumption.

The Directive brings forward legally binding measures for Member States, measures aimed on energy savings, including renovation of public buildings, saving programs for public services and energy audits for companies. Such measures should bring energy savings of 20% for the EU as a whole by 2020.

The **main aspects** of the new directive are:

- Each Member State should be required to set indicative national energy efficiency targets till April, 2013 to reach the EU objective of increasing energy efficiency of 20% by 2020. This is a new step towards the fulfilment of the targets that will be followed, if necessary, by the introduction (by the EC) of a new legislative proposal that would establish mandatory national targets for energy efficiency.
- A long-term strategy for mobilizing investments in the renovation of the national stock of residential and commercial buildings, both public and private, shall be established by the Member States.
- A 3% renovation rate for public buildings ("central government-owned and occupied").
- Achieving new savings each year by all energy distributors or all retail energy sales companies from 2014 to 2020 as a minimum % of the annual energy sales to final customers, by implementing energy efficiency measures.

[2] On the 14th of November the Directive 2012/27/EU (Energy Efficiency Directive), abolishing the Directive 2006/32/EC, has been published in the OJ of the EU).

- Introduction of energy audits for all large companies that will be conducted every four years by qualified and accredited experts.
- Encouragement of training programmes for the qualification of energy auditors in order to facilitate sufficient availability of experts in the Member States.
- Adoption of Energy Management Systems for large firms; cost-benefit analysis for the deployment of combined heat and power generation (CHP).
- Introducing the intelligent metering systems for the final consumers, that will enable them to manage their energy consumption better.
- Special provisions for establishing financial incentives for energy efficiency measures are also included in the directive. Member States will have to facilitate their creation or use the existing ones. Member States are also encouraged to use Structural Funds and Cohesion.

- **Energy Performance Contracting**

Model contracts, exchange of best practice and guidelines, in particular for **Energy Performance Contracting**, can help stimulate demand of energy services. **Energy performance contracting** means a contractual arrangement between the beneficiary and the provider of an energy efficiency improvement measure, verified and monitored during the whole term of the contract, where investments (work, supply or service) in that measure are paid for in relation to a contractually agreed level of energy efficiency improvement or other agreed energy performance criterion, such as financial savings.

In an **Energy Performance Contract** the beneficiary of the energy service avoids investment costs by using part of the financial value of energy savings to repay the investment fully or partially carried out by a third party.

This practice is encouraged by the EC both in article 5 & 6 **of the new EE Directive,** as well as in Annex XIII that describes the minimum items to be included in energy performance contracts with the public sector or in the associated tender specifications. Especially, this mechanism is promoted when defining the role of the public sector in public procurement that is established by **art. 6**, referred to ***Purchasing by public bodies*** of the Member States. According to it, the ***central governments*** will "purchase only products, services and buildings with high-energy efficiency performance**, *insofar as this is consistent with* cost-effectiveness, economical feasibility, *wider* sustainability, technical suitability, as well as sufficient competition,** as referred to in Annex III". The public bodies at local and regional level will be encouraged ***"to follow the exemplary role of their central governments to purchase only products, services and buildings with high-energy efficiency performance"*** *and* ***"to assess the possibility of concluding long term energy performance contracts that provide long-term energy savings".*** Moreover, on October 2012, DG Energy announced a EU-wide Campaign on Energy Performance Contracting, that aims to promote and build capacity for energy performance contracting and ESCO throughout Europe as a tool to implement SEAPs and deliver on the 20-20-20 goals.

3.2. The vision for the future of GPP and more in detail, EEPP

As the EFFECT research revealed, SEE countries' strategies are largely based on the EC's **GPP toolkit**, developed as a recommendation and designed both to achieve emission reduction targets for greenhouse gas emissions throughout the Union, and to save resources.

The basic concept of GPP relies on having clear, verifiable, justifiable and ambitious environmental criteria for products and services, based on a life-cycle approach and scientific evidence base.

The criteria used by SEE countries should be similar to avoid a distortion of the single market and a reduction of EU-wide competition. Having common criteria reduces considerably the administrative burden for economic operators and for public administrations implementing GPP. Common GPP criteria are of a particular benefit to companies operating in more than one Member State as well as SMEs (whose capacity to master differing procurement procedures is limited).

Since 2008, the Commission has developed **19 common GPP criteria**. The criteria are regularly updated on the basis of an annual GPP Work Plan.

The GPP criteria are based on data from an evidence base, on existing Ecolabel criteria and on information collected from stakeholders of industry, civil society and Member States.

By judicious use of published Ecolabel and/or life cycle information, GPP focuses on key aspects.

A strong accent is placed on LCC strategies at EU level and their comprehensive implementation that is set to become an important issue in EE public procurement. This trend indicates the necessity to develop and accept LCC calculations methods that will help the evaluation of the solutions or introduction of new innovative solutions to reduce the life cycle cost of work/products/services. LCC can be described as an essential design process for controlling the initial and future cost of the different works/products/services. It can be implemented at any level of the design process but there is a significant possibility of influencing future costs during conception and planning phases. The purpose of the LCC is to select the design that ensures the facility providing the lowest cost of ownership consistent with its quality and function.

As an additional tool, the Life Cycle Assessment is intended to assess the environmental impacts of products, process or services from design to disposal i.e. across its entire lifecycle. The public sector needs to adopt, use LCA for the evaluation of public tenders and to assess compliance with environmental legislation. Various European initiatives have developed supporting tools (e.g.: JUHILAS Carbon Footprint Tools).

4. Transformation of the Current Context into Future Trends

4.1. Principles considered when making recommendations

The sale / purchase process, with the two actors, demand side and supply side, has a defining role for the implementation of EU directives in the area of cooperation involved in the project by integrating energy efficiency criteria in public procurement in the SEE area.

Following the analysis realized in the EFFECT project it was found that many aspects can be improved in order to transform the current situation of energy efficiency in the SEE area, to render the EE public procurement procedures more uniform with a view to achieve the EU target of energy efficiency until 2020.

Most starting points in the recommendations establishment can be considered common to both sides as they pertain to their **training** on the legal framework of energy efficient public procurement, the development of procurement procedures, the practical applications of procurement procedures and of the financial instruments available in EE, calculation tools, encouraging communication parties involved through networking and best practice. Other matters referred to for recommendations are related to the specific activity of public authorities (the demand side) and economical operators (the supply side).

However, it is clear that the private sector is more dynamic in terms of market solutions offered to reduce fuel and energy consumption, as well as environmental protection. Although these solutions are more expensive, they should be requested by the contracting authority on a regular basis as it is known that the long term benefits are obvious. On the long term different ways to reduce the costs of products/process/services could be found and developed.

Each contracting authority must involve trained professionals with the appropriate level of training / information concerning how to prepare, request and evaluate an energy efficiency offer during EEPP procedures.

It is necessary that the two actors of the process of EE sale/ purchase, both public authorities and the private contracting, as a prerequisite, should have adequate knowledge of the regulatory framework on EEPP / GPP and EU proposals on energy efficiency / GPP. So, both parties will be able to use a common vocabulary and will have all the necessary information to initiate specific actions for achieving the energy efficiency targets in the SEE area.

Communication between the public and private sectors is an important issue as well. After setting targets and criteria for energy efficiency, public contracting authorities must make their intentions and deadlines known to give the opportunity to the private sector to direct its production and to participate without barriers on public procurement.

4.2. Actions proposed

To improve the energy efficiency through sale/purchase process the analyses realized within the EFFECT project revealed a series of recommendations for the demand side and supply side:

I. Improvement of demand side

1. Providing **information on regulation** at national, local level. Improvement of the **legal framework** at national, local level.

The *Transnational Catalogue* and the *SWOT analyses on demand side* show the fact that implementing and conversion is running in every PP country but the intensity of conversion is different from one country to another. One of the reasons is that local agencies/public authorities/persons have not enough knowledge about the legislation. These should acquire or improve legal knowledge first, in order to initiate innovative projects in the field.

Public authorities must be acknowledged about the new **EE Directive** at EU level, especially of art. 6 ***Purchasing by public bodies*** *and the possibilities that arise from the implementation of art. 7* ***Energy efficiency obligation schemes***. Also article 5 of the new EED is also very important as it sets the requirements for the exemplary role of public bodies' buildings and clearly states the importance of adopting an energy efficiency plan, to put in place an energy management system and to use energy service companies and energy performance contracting for improving energy efficiency and achieving savings. All these actions are encouraged to be implemented also by regional and local authorities that own and occupy public buildings. Providing Information to public authorities on Pre-Commercial Procurement and Public Procurement of Innovation (PPI) is also essential as will foster energy efficiency in priority sector for sustainable construction and bio-based products (Lead Market Initiative)

2. Raising **awareness** on EEPP for all the public authorities which are involved in the public procurements

This recommendation is quite attached to the first one, going hand in hand, having in view the requirements of the new EE Directive and the exemplary role that public authorities have or should have to initiate/implement EE procedures. Pilot projects should be developed which all the public sectors may follow. The energy efficiency behaviour of the employees in the public authorities should also be modified to serve as a role model in any sector.

3. **Training** should address integration of EE in proposals.

Focus points of trainings:

- Objective – only products, services and buildings with high energy efficiency performance should be purchased, “insofar as this is consistent with cost effectiveness, economical feasibility, wider sustainability, technical suitability, as well as sufficient competition, as referred to in Annex III” (new EE Directive).
- Financing the purchase – the use of financial instruments for energy savings, including Energy Performance Contracts which require the provision of saving measurable

energy; use of Structural and Cohesion Funds where it is possible, the Intelligent Energy Europe Programme and the European Energy Efficiency Facility.

- PPP approach – an alternative to achieve energy efficiency faster and ease the pressure on the public budget. Cooperation between public and private sectors can be informal, on contractual basis or as Public Private Joint Venture Company. The partners have to define objectives and responsibilities for each part, but expertise is scarce and should be improved. Selection of the independent consultation services is not so easy (competition in the business may affect the PPP Company) and exit strategy should be defined in case one partner should cease meeting his obligation under the partnership.
- Legal proceedings and financial tools to support EEPP – It is necessary to establish the possibility to set and include energy efficiency criteria in tendering procedures, while respecting the EU public procurement in this sense. Practical methods of evaluating public procurement using EE criteria need to be developed. It is also necessary to ensure that there is a market for EE products/services available, that fits to the requested criteria and the requirements are driving to the development of this market in general. Financing programmes should be accessed to allow purchase of EE products/services.
- Training the personnel undertaking public procurement procedures will eventually foster the development of EEPP professionals/experts. The knowledge gained will contribute to easy and accurate design and implementation of the EEPP.

4. Making use of **external expertise**

There are many existing resources to develop at public sector level the expertise in EEPP: EE/LCC calculators, on-line training materials, technical specifications, sample of tender documents, consultancy EE experts/agencies. Additionally the EU technical assistance can provide public authorities with the possibility to develop large-scale investments programmes (e.g. refurbishment of buildings, increasing energy efficiency and integration of renewable energy sources in urban transport)

5. **Economy of scale** should be taken into account considering the size of the projects, when cost advantages can be obtained

Joint Public Procurements developed by two or more contracting authorities can bring clear benefits such as lower prices, saving administrative costs, acquiring common skills and expertise. This process could be relevant when small islands or other insulated or fragmented areas are involved. As an additional feature, a regional added value approach could also introduce the awarding criteria associated to a new contract that can bring benefits to the area (i.e. the decision for the procurement of Energy Efficient technology from a big international company, should be examined together with the amount of (new) jobs created in the region, etc.)

6. Available **tools and handbooks (LCC)**

Most of investigated countries in the SEE area promote on official sites the handbook "**Buying Green!**" developed by the European Commission for GPP in Member States. Also the Ecolabel can help to identify products and services that have a reduced environmental impact through their life cycle. Even if the Ecolabel is a voluntary label, the products and services can be trustful, since the criteria have been developed and agreed upon by EE

experts, scientists, NGOs and stakeholders and the products and services are evaluated by the independent experts (http://ec.europa.eu/ecat)

7. Implementation of **Energy Management Systems (EMS)**

EMS may refer to a system in an organization to achieve energy efficiency through well laid out procedures and methods, and to ensure continual improvement, which will spread awareness of energy efficiency throughout the entire organization. Public sector can also use EMS and/or energy audits to centrally monitor and control devices like HVAC and lighting systems in their buildings, as well as fuel consumption.

Recommending EMS development and implementation is also supported by the upcoming new EED that includes supporting provisions towards EMS implementation from public bodies (Art. 5 par. 7), as well as acknowledges the advantages offered by such approaches when it comes to engaging to adopt integrated and sustainable energy efficiency plans.

8. **Networking / SEE exchange**

Some of SEE states can share their EE experience through business information exchange and demonstrative projects, and *legislative support for energy efficiency policies*. Policy makers and energy efficiency endorsers should learn from the best experience and correct any policy or programme shortcomings that exist today. In particular, policy makers and energy efficiency practitioners should keep policies and programmes up-to-date and learn from the experience of those states that can be models. The successful practical implementation of EEPP needs to consider a good collaboration and cooperation between public authorities responsible with EEPP in the SEE area, as well as a certain degree of harmonization of the procedures/tools. Best practices that had demonstrated their efficiency can be followed by developing EE investment programmes at local or regional level, including the development of joint procurement procedures when higher investments are requested. Models of feedback mechanisms can be adopted to highlight the strengths and weakness of an implemented procedure/project, including difficulties encountered.

According to art.19a of EE Directive, “the Commission shall establish an online platform. This platform shall support the exchange of experiences on practices, benchmarking, networking activities, as well as innovative practices”.

II. Improvement of supply side

1. Increasing the **Acknowledgement** of companies that offer EE solutions

As the private sector is more dynamic in terms of market solutions offered to reduce fuel and energy consumption, and to increase environmental protection; it would be beneficial to initiate promotional campaigns and demonstrative projects. Catalogues, studies, calculations software of LCC can be published and disseminate to the public sector. The events could be organized solely by the private or in collaboration with governmental agencies, chambers of commerce, NGOs.

2. **Training for SMEs** should address:

- EE procedures and the legal framework in place – knowledge will help the private sector to use a common vocabulary with the contracting authorities and to use information to drive their production to the required product/services and to participate in public tenders
- Financing tools available for EE – focused on Energy Performance Contracts, energy service agreements, management utility service contracts, loan funds, financing scheme and instruments or fiscal incentives provided by the public sector policy measures
- Use of calculating tools (LCC) – Life-cycle Costing (LCC) is a methodology used to estimate the total cost of ownership. The LCC is not mandatory in the procurement procedures but may be an option for the future. Private sector can use the EU methodological framework for the estimation of life-cycle cost for buildings and constructed assets.
- PPP, legislation and how to become "greener" – Public-Private Partnership can be financed on EU level, like the three PPPs launched by the Commission in 2009, to support research and innovation in key industrial sector. As the work has already started on preparing the new Multi-Annual Roadmaps to identify research priorities for the period 2014-2020, and stakeholder consultation was open until 1 October 2012, new PPPs can receive support and EU funding if partners share the same vision and clearly defined objectives
- Promote examples of Green Procurements – according to the model of green products/services, the companies can voluntarily apply eco-labeling on their products or services (EC elaborated a step-by-step guide). Eco-labeling can change their market strategy and shows to the consumers that their production policy is oriented to environmentally friendly products and services.

3. Explanation and justification for **Centralized procurement systems –** In order to achieve economies of scale, an organization's procurement functions can be joined into shared services. This combines several procurement units into one centralized procurement system. Under this system, the procurement department purchases the required materials for all the departments and branches of the organization. Advantages are clear, from lower prices and favourable purchasing terms to uniformity in purchasing policies. The system might not be applicable if the branches of the organization are located into different geographical locations.

4. In relation with the previous item, the SMEs should be encouraged to set up **networks of enterprises (professional clusters)** that will help them to participate to large procurement procedures (implemented through centralized procurement systems) and also to participate to international tenders, and even to compete with international players.

5. Increase the capacity of regional/local actors (REAs, RDAs, RIAs, Chambers of Commerce, etc) to act as **Technical Intermediate Expert Bodies** or as meeting point within the field – even if the majority of companies claimed that a contact point is not necessary, the survey revealed the importance of communication. Such organizations could have an important role to provide information and to create a "bridge" between demand side and supply side. An **Technical Intermediate Expert Body** can help the two side planning common actions, common trainings or promotion activities.

5. Conclusions

A major area to improve is the **awareness** regarding the real advantages of the energy efficient approach in public procurement, both of the private and of the public sectors' representatives. To this end, the proposed recommendations include improving the effectiveness of the informational flow when it comes to legislative provisions, technical necessities and solutions and/or existing technologies. Concrete actions must include encouraging the regional actors to get involved in creating physical and/or virtual markets, to represent meeting, information and socialization opportunities for the demand and the supply of energy efficient products, services and works.

Training is also a highly fertile area. Throughout SEE area there has been identified the need to intensify the efforts by building and consolidating the capacity of the actors within the EEPP procedures in order to contribute to the development and stabilisation of this sector.

The intervention poles are related to finances, costing and savings both for demand and for the supply side, as follows:

1. Training and know-how to finance the energy efficient investments;

2. Efficiently evaluating the costs of energy efficient investments (e.g. through LCC tools)

3. Streamline and facilitate the tendering process

4. Obtaining economies of scale by cooperation and centralization, thus generating a leverage effect in the market for the energy efficient products, services and works.

A general conclusion is that training activities to be carried on through the EFFECT project, both towards the demand and supply side, should be based on the **educational** and **practical function and implementation** of the Energy Efficient Public Procurement procedures and processes.